GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

SUMMARY PAGE

Name of Facility: Gwinnett County Department of Water Resources – F. Wayne Hill WRC

NPDES Permit No.: GA0038130

This is a reissuance of the NPDES permit for the F. Wayne Hill WRC. Up to 50.0 MGD (monthly average) of treated domestic wastewater is discharged to Lake Lanier in the Chattahoochee River Basin. The permit also includes provisions for up to 20 MGD of treated wastewater to be pumped to the Crooked Creek WRF's (NPDES Permit No. GA0026433) shared effluent pipe prior to discharge to the Chattahoochee River (refer to NPDES Permit No. GA0026433 for combined effluent monitoring requirements). The permit expired on July 31, 2019 and became administratively extended.

The permit was placed on public notice from July 29 to August 30, 2021.

Please Note The Following Changes to the Proposed NPDES Permit From The Existing Permit:

Cover Page:

- Updated the facility address.

Part I.A

- Decreased outfall maintenance inspection frequency from once per year to once per permit cycle.

Part I.B – Effluent Limitations and Monitoring Requirements:

- Replaced effluent limitations and monitoring requirements associated with the design flow of 40 MGD, with those associated with the expanded flow of 50 MGD (monthly average).
- Added an effluent flow limitation for the facility to pump up to 20 MGD of treated wastewater to the Crooked Creek WRF's shared effluent pipe, since associated requirements have been removed from the Crooked Creek WRF's NPDES Permit No. GA0026433 for clarity purposes.
- Added a combined monthly average flow limitation of 60 MGD between the discharge and the flow sent to Crooked Creek WRF's shared effluent pipe, based on the design capacity of the F. Wayne Hill WRC.

Standard Conditions and Boilerplate Modifications :

The permit boilerplate includes modified or added language consistent with current NPDES permits.

Final Permit Determinations and Public Comments:

☒ Final issued permit did not change from the draft permit placed on public notice.
☒ Public comments were received during public notice period.
☐ Public hearing was held on
☐ Final permit includes changes from the draft permit placed on public notice. See attached permit revisions and/or permit fact sheet revisions.

Public Comments and EPD Responses on Draft Permit
Gwinnett County – F. Wayne Hill Water Resources Center (WRC)
NPDES Permit No. GA0038130

Comment	Response to Comment
[Gwinnett County] ha[s] no objection to switching from COD to cBOD, but [Gwinnett County] do[es] object to keeping both limits. Gwinnett County DWR would prefer to continue with the COD limit as the staff at F. Wayne Hill WRC have been effectively using this limit for compliance and operational management for over fifteen years. However, […] including only cBOD in the final permit would significantly improve [Gwinnett County's] operational flexibility and reduce staffing constraints. […] Gwinnett County DWR is requesting that the final NPDES permit include a limit for either COD or cBOD as proposed by GA EPD staff in the draft permit, but not both.	40 CFR Parts 125.3 and 133.102 require all publicly-owned treatment works to demonstrate compliance with effluent testing requirements for biochemical oxygen demand as BOD_5 or $cBOD_5$. In accordance with 40 CFR Part 133.104(b), chemical oxygen demand (COD) limitations may be implemented in lieu of biochemical oxygen demand if a long-term correlation between BOD and COD has been demonstrated. However, it is EPD's understanding that a long-term correlation has not been developed by the F. Wayne Hill WRC. Despite the lack of a correlation study, EPD understands that COD has been historically included in the permit in lieu of biochemical oxygen demand, in accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc. However, since the Lake Lanier water quality model is based on biochemical oxygen demand and a correlation between BOD and COD has not been developed, EPD cannot confirm whether the current COD limitation is protective of the water quality standard for dissolved oxygen, and/or whether the technology-based COD limitation is as stringent as the water-quality based $cBOD_5$ limitation outlined on the 2018 wasteload allocation. Therefore, in accordance with 40 CFR Part 133.102, effluent limitations for $cBOD_5$ must be included in the final permit at this time; and, since the facility can consistently meet the COD limitation, it is considered a technology-based effluent limitation based on demonstrative performance and must be maintained in the permit at this time. In the future, if a suitable long-term correlation study is established, EPD may remove the less stringent effluent limitation based on this new information,

	in accordance with anti-backsliding requirements outlined in 40 CFR Part 122.44(l). If the permittee wishes to pursue this option for a correlation study, the permittee must submit a monitoring plan for review and approval prior to the initiation of the study. Following EPD's approval of the plan and the correlation study results, the permit may be modified to reflect the relationship between the two parameters.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

EPD Director's Office
2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

Ms. Tyler Richards, Director
Gwinnett County Department of Water Resources
684 Winder Highway
Lawrenceville, Georgia 30045

12/17/2021

RE: Permit Issuance
F. Wayne Hill Water Resources Center
NPDES Permit No. GA0038130
Gwinnett County, Chattahoochee River Basin

Dear Ms. Richards:

Pursuant to the Georgia Water Quality Control Act, as amended; the Federal Water Pollution Control Act, as amended; and the Rules and Regulations promulgated thereunder, we have today issued the attached National Pollutant Discharge Elimination System (NPDES) permit for the referenced wastewater treatment facility.

Your facility has been assigned to the following EPD office for reporting and compliance:

Georgia Environmental Protection Division
Watershed Compliance Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

Please be advised that on and after the effective date indicated in the attached NPDES permit, the permittee must comply with all the terms, conditions and limitations of this permit.

If you have any questions or concerns, please contact Kelli-Ann Sottile at 470-938-3351 or via email at *kelli-ann.sottile@dnr.ga.gov*.

Sincerely,

Richard Dunn
Director

RD\kas
Attachments: NPDES Permit No. GA0038130, Fact Sheet
cc: Kevin Farrell, Gwinnett County (kevin.farrell@gwinnettcounty.com)
Marzieh Shahbazaz, EPD Municipal Compliance Unit (marzieh.shahbazaz@dnr.ga.gov)
Tyler Parsons, EPD TMDL Modeling and Development Unit (tyler.parsons@dnr.ga.gov)
Josh Welte, EPD Water Quality Modeling Unit (josh.welte@dnr.ga.gov)
EPA Region IV Mailbox (*R4NPDESPermits@epa.gov*)

Permit No. GA0038130
Issuance Date: 12/17/2021

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Gwinnett County
Department of Water Resources
684 Winder Highway
Lawrenceville, Georgia 30045

is authorized to discharge from a facility located at

F. Wayne Hill Water Resources Center
1500 One Water Way
Buford, Georgia 30519
(Gwinnett County)

to receiving waters

Lake Sidney Lanier
(Chattahoochee River Basin)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on February 8, 2018, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This permit shall become effective on January 1, 2022.

This permit and the authorization to discharge shall expire at midnight, December 31, 2026.

STATE OF GEORGIA
CONSTITUTION
WISDOM JUSTICE MODERATION
1776

Director,
Environmental Protection Division

PART I

EPD is the Environmental Protection Division of the Department of Natural Resources.

The Federal Act referred to is The Clean Water Act.

The State Act referred to is The Water Quality Control Act (Act No. 870).

The State Rules referred to are The Rules and Regulations for Water Quality Control (Chapter 391-3-6).

A. SPECIAL CONDITIONS

1. SLUDGE DISPOSAL REQUIREMENTS

Sludge shall be disposed of according to the regulations and guidelines established by the EPD and the Federal Act section 405(d) and (e), and the Resource Conservation and Recovery Act (RCRA). In land applying nonhazardous municipal sewage sludge, the permittee shall comply with the general criteria outlined in the most current version of the EPD "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. Before disposing of municipal sewage sludge by land application or any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to EPD for written approval. This plan will become a part of the NPDES Permit after approval and modification of the permit. The permittee shall notify the EPD of any changes planned in an approved sludge management plan.

If an applicable management practice or numerical limitation for pollutants in sewage sludge is promulgated under Section 405(d) of the Federal Act after approval of the plan, then the plan shall be modified to conform with the new regulations.

2. SLUDGE MONITORING REQUIREMENTS

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor and maintain records documenting the quantity of sludge removed from the facility. Records shall be maintained documenting that the quantity of solids removed from the facility equals the solids generated on an average day. The total quantity of sludge removed from the facility during the reporting period shall be reported each month with the Discharge Monitoring Reports as required under Part I.D.1. of this permit. The quantity shall be reported on a dry weight basis (dry tons).

3. INTRODUCTION OF POLLUTANTS INTO THE PUBLICLY OWNED TREATMENT WORKS (POTW)

The permittee must notify EPD of:

a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the Federal Act if the pollutants were directly discharged to a receiving stream; and

b. Any substantial change in the volume or character of pollutants from a source that existed when the permit was issued.

This notice shall include information on the quality and quantity of the indirect discharge introduced and any anticipated impact on the quantity or quality of effluent to be discharged from the POTW.

4. EFFLUENT TOXICITY AND BIOMONITORING REQUIREMENTS

The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with Chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, the EPD may require the permittee to perform any of the following actions:

a. Acute biomonitoring tests;

b. Chronic biomonitoring tests;

c. Stream studies;

d. Priority pollutant analyses;

e. Toxicity reduction evaluations (TRE); or

f. Any other appropriate study.

The EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by the EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the permitted monthly average flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

The permittee must eliminate effluent toxicity and supply the EPD with data and evidence to confirm toxicity elimination.

5. OUTFALL MAINTENANCE

The permittee shall conduct an inspection of the subaqueous outfall and diffuser once per permit cycle to determine their physical condition and operating performance. The inspection shall be conducted either by certified divers and/or with the use of appropriate remote/robotic technologies. A written report shall be submitted to the EPD within sixty (60) days of the inspection and at least 180 days prior to the expiration date of the permit.

The report and other information shall be submitted to EPD at the address below:

Environmental Protection Division
Municipal Compliance Unit
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

B.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Discharge to Lake Sidney Lanier - Outfall #001 (34.163610°, -84.056320°):

a. The discharge from the water resources center shall be limited and monitored by the permittee as specified below:

Parameters	Discharge limitations in mg/L (kg/day) unless otherwise specified		Monitoring Requirements		
	Monthly Average	Weekly Average	Measurement Frequency	Sample Type	Sample Location
Flow (MGD) (1)	50.0	62.5	Seven Days/Week	Continuous Recording	Effluent
Five-Day Carbonaceous Biochemical Oxygen Demand (2)	2.5 (474)	3.8 (592)	Seven Days/Week	Composite	Influent & Effluent
Chemical Oxygen Demand (2)	18.0 (3,412)	27.0 (4,265)	One Day/Month	Composite	Influent & Effluent
Total Suspended Solids (2)	3 (569)	4.5 (711)	Seven Days/Week	Composite	Influent & Effluent
Ammonia, as N (3)	0.4 (75.8)	0.6 (94.8)	Seven Days/Week	Composite	Effluent
Total Phosphorus, as P (4)	0.08 (15.2)	0.12 (19.0)	Seven Days/Week	Composite	Effluent
Fecal Coliform Bacteria (#/100mL)	2	23	Seven Days/Week	Grab	Effluent
Escherichia Coli (CFU/100mL)	126	410	Seven Days/Week	Grab	Effluent

(1) The combined monthly average flow between B.1. and B.2. shall not exceed 60.0 MGD.

(2) Numeric limits only apply to the effluent.

(3) Ammonia, organic nitrogen, nitrate-nitrite, and total Kjeldahl nitrogen (TKN) must be analyzed or calculated from the same sample. Organic nitrogen, as N = TKN – ammonia, as N.

(4) Total phosphorus and orthophosphate must be analyzed from the same sample.

(Effluent limitations continued on the next page)

B.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

Discharge to Lake Sidney Lanier - Outfall #001 (34.163610°, -84.056320°):

Parameters	Discharge limitations in mg/L unless otherwise specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Chemical Oxygen Demand Removal, Minimum (%) (1)	85	See Below	See Below	See Below
Carbonaceous Biochemical Oxygen Demand Removal, Minimum (%) (1)	85	See Below	See Below	See Below
Total Suspended Solids Removal, Minimum (%) (1)	85	See Below	See Below	See Below
pH, Daily Minimum – Daily Maximum (S.U.)	6.0 – 9.0	Seven Days/Week	Grab	Effluent
Total Residual Chlorine, Daily Maximum (2)	0.15	Seven Days/Week	Grab	Effluent
Dissolved Oxygen, Daily Minimum	7.0	Seven Days/Week	Grab	Effluent
Turbidity, Monthly Average (NTU)	0.5	Seven Days/Week	Grab	Effluent
Orthophosphate, as P (3)	Report	One Day/Month	Composite	Effluent
Organic Nitrogen, as N (4)	Report	One Day/Month	Composite	Effluent
Nitrate-Nitrite, as N (4)	Report	One Day/Month	Composite	Effluent
Total Kjeldahl Nitrogen, as N (4)	Report	One Day/Month	Composite	Effluent
Priority Pollutants (5)	Report	One Day/Quarter	Composite	Effluent
Chronic Whole Effluent Toxicity (%) (6)	Report NOEC	See Below	Composite	Effluent
Temperature (°F) (7)	Report	See Below	See Below	Effluent

(1) Percent removal shall be calculated from monthly average influent and effluent concentrations. Influent and effluent samples shall be collected at approximately the same time.

(2) Monitoring requirements and the effluent limitation for Total Residual Chlorine (TRC) only apply when chlorine is in use at the facility. The permittee must use the appropriate No Data Indicator (NODI) code on the DMRs when TRC monitoring is not required. If the treatment process needs to be upgraded to meet the TRC limit, the permittee must submit a design development report and plans and specifications to EPD for review and approval prior to construction.

(3) Total phosphorus and orthophosphate must be analyzed from the same sample.

(4) Ammonia, organic nitrogen, nitrate-nitrite, and total Kjeldahl nitrogen (TKN) must be analyzed or calculated from the same sample. Organic nitrogen, as N = TKN – ammonia, as N

(5) Refer to Part I.C.9. PRIORITY POLLUTANTS.

(6) Refer to Part I.C.10. CHRONIC WHOLE EFFLUENT TOXICITY.

(7) Effluent temperature shall be recorded continuously at a minimum of 60-min intervals. The permittee will report minimum, maximum, and monthly average on the DMRs, and include the hourly temperature data for the reporting period with the OMRs. Refer to Part I.C.11. TEMPERATURE MONITOIRNG.

b. The monthly average, other than for fecal coliform bacteria and *Escherichia Coli*, is the arithmetic mean of values obtained for samples collected during a calendar month.

c. The weekly average, other than for fecal coliform bacteria and *Escherichia Coli*, is the arithmetic mean of values obtained for samples collected during a 7-day period. The week begins 12:00 midnight Saturday and ends at 12:00 midnight the following Saturday. To define a different starting time for the sampling period, the permittee must notify the EPD in writing. For reporting required by Part I.D.1. of this permit, a week that starts in one month and ends in another month shall be considered part of the second month. The permittee may calculate and report the weekly average as a 7-day moving average.

d. Fecal coliform bacteria and *Escherichia Coli* will be reported as the geometric mean of the values for the samples collected during the time periods in I.B.1.b. and I.B.1.c.

e. Influent monitoring: Unless otherwise specified, influent samples shall be collected before any return or recycle flows. These flows include returned activated sludge, supernatants, centrates, filtrates, and backwash.

f. Effluent monitoring: Unless otherwise specified, effluent samples shall be collected after the final treatment process and before discharge to receiving waters.

g. A composite sample shall consist of a minimum of 13 subsamples collected at least once every 2 hours for at least 24 hours and shall be composited proportionately to flow.

h. Flow measurements shall be conducted using the flow measuring device(s) in accordance with the approved design of the facility. If instantaneous measurements are required, then the permittee shall have a primary flow measuring device that is correctly installed and maintained. If continuous recording measurements are required, then flow measurements must be made using continuous recording equipment. Calibration shall be maintained of the continuous recording instrumentation to ± 10% of the actual flow.

   Flow shall be measured manually to check the flow meter calibration at a frequency of once a month. If secondary flow instruments are in use and malfunction or fail to maintain calibration as required, the flow shall be computed from manual measurements or by other method(s) approved by EPD until such time as the secondary flow instrument is repaired. For facilities which utilize alternate technologies for measuring flow, the flow measurement device must be calibrated semi-annually by qualified personnel.

   Records of the calibration checks shall be maintained.

i. If secondary flow instruments malfunction or fail to maintain calibration as required in I.B.1.h., the flow shall be computed from manual measurements taken at the times specified for the collection of composite samples.

j. Some parameters will be reported as "not detected" when they are below the detection limit and will then be considered in compliance with the effluent limit. The detection limit will also be reported.

B.2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effluent Pumped to Crooked Creek WRF:

a. The treated effluent pumped from the water resources center to the Crooked Creek WRF (NPDES Permit No. GA0026433) shall be limited and monitored by the permittee as specified below:

Parameters	Discharge limitations		Monitoring Requirements		
	Monthly Average	Weekly Average	Measurement Frequency	Sample Type	Sample Location
Flow (MGD) [(1)]	20.0 [(1)]	25.0	Seven Days/Week	Continuous	Effluent

[(1)] The combined monthly average flow between B.1. and B.2. shall not exceed 60.0 MGD.

b. The monthly average is the arithmetic mean of values obtained for samples collected during a calendar month.

c. The weekly average is the arithmetic mean of values obtained for samples collected during a 7-day period. The week begins 12:00 midnight Saturday and ends at 12:00 midnight the following Saturday. To define a different starting time for the sampling period, the permittee must notify the EPD in writing. For reporting required by Part I.D.1. of this permit, a week that starts in one month and ends in another month shall be considered part of the second month. The permittee may calculate and report the weekly average as a 7-day moving average.

d. Effluent monitoring: Unless otherwise specified, effluent samples shall be collected after the final treatment process and prior to being pumped to the Crooked Creek WRF.

e. Flow measurements shall be conducted using the flow measuring device(s) in accordance with the approved design of the facility. If instantaneous measurements are required, then the permittee shall have a primary flow measuring device that is correctly installed and maintained. If continuous recording measurements are required, then flow measurements must be made using continuous recording equipment. Calibration shall be maintained of the continuous recording instrumentation to ± 10% of the actual flow.

Flow shall be measured manually to check the flow meter calibration at a frequency of once a month. If secondary flow instruments are in use and malfunction or fail to maintain calibration as required, the flow shall be computed from manual measurements or by other method(s) approved by EPD until such time as the secondary flow instrument is repaired. For facilities which utilize alternate technologies for measuring flow, the flow measurement device must be calibrated semi-annually by qualified personnel.

Records of the calibration checks shall be maintained.

f. If secondary flow instruments malfunction or fail to maintain calibration as required in I.B.2.g., the flow shall be computed from manual measurements taken at the times specified for the collection of composite samples.

B.3. INSTREAM SURFACE WATER QUALITY MONITORING

Lake Sidney Lanier:

a. The receiving stream shall be monitored by the permittee as specified below:

Parameters	Instream Surface Water Quality Monitoring	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Temperature (ºF) [1]	See Below	See Below	Grab	Buford Dam
Lake Monitoring [2]	See Below	See Below	Grab	See Below

(1) Instream temperature shall be recorded continuously at a minimum of 60-min intervals. The permittee will report minimum, maximum, and monthly average on the DMRs, and include the hourly temperature data for the reporting period with the OMRs.

Refer to Part I.C.11. TEMPERATURE MONITORING.

(2) Refer to Part I.C.12. LAKE MONITORING.

C. MONITORING AND REPORTING

1. REPRESENTATIVE SAMPLING

Samples and measurements of the monitored waste shall represent the volume and nature of the waste stream. The permittee shall maintain a written sampling and monitoring schedule.

2. SAMPLING PERIOD

a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.

b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.

c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. MONITORING PROCEDURES

All analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. RECORDING OF RESULTS

For each required parameter analyzed, the permittee shall record:

a. The exact place, date, and time of sampling, and the person(s) collecting the sample. For flow proportioned composite samples, this shall include the instantaneous flow and the corresponding volume of each sample aliquot, and other information relevant to document flow proportioning of composite samples;

b. The dates and times the analyses were performed;

c. The person(s) who performed the analyses;

d. The analytical procedures or methods used; and

e. The results of all required analyses.

5. ADDITIONAL MONITORING BY PERMITTEE

If the permittee monitors required parameters at the locations designated in I.B. more frequently than required, the permittee shall analyze all samples using approved analytical methods specified in I.C.3. The results of this additional monitoring shall be included in calculating and reporting the values on the Discharge Monitoring Report forms. The permittee shall indicate the monitoring frequency on the report. The EPD may require in writing more frequent monitoring, or monitoring of other pollutants not specified in this permit.

6. RECORDS RETENTION

The permittee shall retain records of:

a. All laboratory analyses performed including sample data, quality control data, and standard curves;

b. Calibration and maintenance records of laboratory instruments;

c. Calibration and maintenance records and recordings from continuous recording instruments;

d. Process control monitoring records;

e. Facility operation and maintenance records;

f. Copies of all reports required by this permit;

g. All data and information used to complete the permit application; and

h. All monitoring data related to sludge use and disposal.

These records shall be kept for at least three years. Sludge handling records must be kept for at least five years. Either period may be extended by EPD written notification.

7. PENALTIES

Both the Federal and State Acts provide that any person who falsifies or tampers with any monitoring device or method required under this permit, or who makes any false statement, representation, or certification in any record submitted or required by this permit shall, if convicted, be punished by a fine or by imprisonment or by both. The Acts include procedures for imposing civil penalties for violations or for negligent or intentional failure or refusal to comply with any final or emergency order of the Director of the EPD.

8. WATERSHED PROTECTION PLAN

The permittee has a Watershed Protection Plan that has been approved by EPD. The permittee's approved Watershed Protection Plan shall be enforceable through this permit.

Each June 30th the permittee is to submit the following to EPD:

a. An annual certification statement documenting that the plan is being implemented as approved. The certification statement shall read as follows: "I certify, under penalty of law, that the Watershed Protection Plan is being implemented. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

b. All Watershed Plan data collected during the previous year in an electronic format. This data shall be archived using a digital format such as a spreadsheet developed in coordination with EPD. All archived records, data, and information pertaining to the Watershed Protection Plan shall be maintained permanently.

c. A progress report that provides a summary of the BMPs that have been implemented and documented water quality improvements. The progress report shall also include any necessary changes to the Watershed Protection Plan.

The report and other information shall be submitted to EPD at the address below:

Environmental Protection Division
Watershed Planning and Monitoring Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

9. PRIORITY POLLUTANTS

The permittee must conduct one scan each quarter of the priority pollutants, including total recoverable mercury. The priority pollutant scans must represent seasonal variation. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E. The results of the tests shall be submitted to EPD with the permittee's monthly Discharge Monitoring Reports.

If substances are measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.5 or the permit may be modified to include effluent limitations for priority pollutants.

10. CHRONIC WHOLE EFFLUENT TOXICITY (WET)

The permittee shall conduct one chronic whole effluent toxicity (WET) test for four consecutive quarters, with the first test conducted within 90 days of the effective date of the permit. The testing must be conducted in accordance with the most current U.S. Environmental Protection Agency (EPA) chronic aquatic toxicity testing manuals. The referenced document is entitled Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th Edition, U.S. EPA, 821-R-02-013, October 2002. Definitive tests must be run on the same samples concurrently using both an invertebrate species (i.e., *Ceriodaphnia dubia*) and a vertebrate species (i.e., *Pimephales promelas*). The testing must include a dilution equal to the facility's instream wastewater concentration (IWC) of 7%.

EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. An effluent discharge will not be considered toxic if the No Observed Effect Concentration (NOEC) is greater than or equal to the Instream Wastewater Concentration (IWC) of 7%. The results of the tests shall be submitted to EPD with the permittee's monthly Discharge Monitoring Reports.

Within fifteen months of the effective date of the permit, the permittee shall submit a report to EPD that includes a summary of the effluent data collected as well as copies of all the analytical laboratory reports. The report shall be submitted to EPD at the address below:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

Upon receipt of the report, EPD will evaluate the results. If the test results indicate effluent toxicity, the permittee may be required to perform additional tests or studies in accordance with Part I.C.5 of the permit and/or the permit may be modified to include a chronic WET limit.

11. TEMPERATURE MONITORING

Temperature monitoring shall be conducted as approved by EPD. Any changes to the temperature monitoring location, method, or sampling procedures must be approved by EPD.

a. Effluent Temperature Monitoring

Effluent temperature must be continuous monitored at a representative location as close to the discharge outfall as practicable. The temperature monitoring device utilized must be calibrated on a monthly basis, at a minimum.

Temperature data must be recorded and reported a minimum of hourly, in degrees Fahrenheit. The data shall be archived in a digital format (i.e. excel spreadsheet) and maintained for a minimum of 5 years by the permittee. The permittee shall record the minimum, maximum, and monthly average on their monthly DMRs, and includee the hourly temperature data for the reporting period with the OMRs.

By January 31st each year, the permittee shall then submit an annual report to EPD of all the monitoring data collected in the previous calendar year.

The report and other information shall be submitted to EPD at the address below:

Environmental Protection Division
Watershed Planning and Monitoring Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

b. Buford Dam Release Water Temperature Monitoring

The water temperature of Buford Dam releases shall be monitored at least hourly seven days week by the permittee or its contractor unless the monitor is not operational due to malfunction or maintenance. The hourly release water temperature data are to be archived using a digital format such as a spreadsheet developed in coordination with EPD. The data shall be maintained by the permittee or its contractor for a period of five years and the data for the previous year shall be submitted to EPD by January 31st. In addition, the permittee shall make the data available to EPD upon request.

The report and other information shall be submitted to EPD at the address below:

Environmental Protection Division
Watershed Planning and Monitoring Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

12. LAKE MONITORING

The permittee has developed a lake monitoring plan which has been approved by EPD. The permittee shall continue monitoring in accordance with the approved monitoring plan. The data shall be maintained by the permittee or its contractor for a period of five years and the data for the previous year shall be submitted to EPD by January 31st of each year. In addition, the permittee shall make the data available to EPD upon request.

The report and other information shall be submitted to EPD at the address below:

Environmental Protection Division
Municipal Compliance Unit
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

D. REPORTING REQUIREMENTS

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.

   a. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: https://netdmr.epa.gov/netdmr/public/home.htm

   b. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.

   c. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.

   d. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

2. **No later than December 21, 2025,** the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:

   a. Sewage Sludge/Biosolids Annual Program Reports provided that the permittee has an approved Sewage Sludge (Biosolids) Plan;

   b. Pretreatment Program Reports provided that the permittee has an approved Industrial Pretreatment Program in this permit;

   c. Sewer Overflow/Bypass Event Reports;

   d. Noncompliance Notification;

   e. Other noncompliance; and

   f. Bypass

3. OTHER REPORTS

All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. OTHER NONCOMPLIANCE

All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. SIGNATORY REQUIREMENTS

All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:

1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:

i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or

ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or

3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.

b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:

1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;

2. The authorization is made in writing by the person designated under (a) above; and

3. The written authorization is submitted to the Director.

c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.

d. Any person signing any document under (a) or (b) above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

PART II

A. MANAGEMENT REQUIREMENTS

1. PROPER OPERATION AND MAINTENANCE

The permittee shall properly maintain and operate efficiently all treatment or control facilities and related equipment installed or used by the permittee to achieve compliance with this permit. Efficient operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. Back-up or auxiliary facilities or similar systems shall be operated only when necessary to achieve permit compliance.

2. PLANNED CHANGE

Any anticipated facility expansions, or process modifications which will result in new, different, or increased discharges of pollutants requires the submission of a new NPDES permit application. If the changes will not violate the permit effluent limitations, the permittee may notify EPD without submitting an application. The permit may then be modified to specify and limit any pollutants not previously limited.

3. TWENTY-FOUR HOUR REPORTING

If, for any reason the permittee does not comply with, or will be unable to comply with any effluent limitations specified in the permittee's NPDES permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

a. A description of the noncompliance and its cause; and

b. The period of noncompliance, including the exact date and times; or, if not corrected, the anticipated time the noncompliance is expected to continue; and

c. The steps taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

4. ANTICIPATED NONCOMPLIANCE NOTIFICATION

The permittee shall give written notice to the EPD at least 10 days before:

a. Any planned changes in the permitted facility; or

b. Any activity which may result in noncompliance with the permit.

5. OTHER NONCOMPLIANCE

The permittee must report all instances of noncompliance not reported under other specific reporting requirements, at the time monitoring reports are submitted. The reports shall contain the information required under conditions of twenty-four hour reporting.

6. OPERATOR CERTIFICATION REQUIREMENTS

The person responsible for the daily operation of the facility must be a Class I Certified Operator in compliance with the Georgia State Board of Examiners for Certification of Water and Wastewater Plant Operators and Laboratory Analysts Act, as amended, and as specified by Subparagraph 391-3-6-.12 of the Rules and Regulations for Water Quality Control. All other operators must have the minimum certification required by this Act.

7. LABORATORY ANALYST CERTIFICATION REQUIREMENTS

Laboratory Analysts must be certified in compliance with the Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended.

8. BYPASSING

Any diversion of wastewater from or bypassing of wastewater around the permitted treatment works is prohibited, except if:

a. Bypassing is unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There are no feasible alternatives to bypassing; and

c. The permittee notifies the EPD at least 10 days before the date of the bypass.

Feasible alternatives to bypassing include use of auxiliary treatment facilities and retention of untreated waste. The permittee must take all possible measures to prevent bypassing during routine preventative maintenance by installing adequate back-up equipment.

The permittee shall operate the facility and the sewer system to minimize discharge of pollutants from combined sewer overflows or bypasses and may be required by the EPD to submit a plan and schedule to reduce bypasses, overflows, and infiltration.

Any unplanned bypass must be reported following the requirements for noncompliance notification specified in II.A.3. The permittee may be liable for any water quality violations that occur as a result of bypassing the facility.

9. POWER FAILURES

If the primary source of power to this water pollution control facility is reduced or lost, the permittee shall use an alternative source of power to reduce or control all discharges to maintain permit compliance.

10. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge disposal which might adversely affect human health or the environment.

11. NOTICE CONCERNING ENDANGERING WATERS OF THE STATE

Whenever, because of an accident or otherwise, any toxic or taste and color producing substance, or any other substance which would endanger downstream users of the waters of the State or would damage property, is discharged into such waters, or is so placed that it might flow, be washed, or fall into them, it shall be the duty of the person in charge of such substances at the time to forthwith notify EPD in person or by telephone of the location and nature of the danger, and it shall be such person's further duty to immediately take all reasonable and necessary steps to prevent injury to property and downstream users of said water.

Spills and Major Spills:

A "spill" is any discharge of raw sewage by a Publicly Owned Treatment Works (POTW) to the waters of the State.

A "major spill" means:

1. The discharge of pollutants into waters of the State by a POTW that exceeds the weekly average permitted effluent limit for biochemical oxygen demand (5-day) or total suspended solids by 50 percent or greater in one day, provided that the effluent discharge concentration is equal to or greater than 25 mg/L for biochemical oxygen demand or total suspended solids.

2. Any discharge of raw sewage that 1) exceeds 10,000 gallons or 2) results in water quality violations in the waters of the State.

"Consistently exceeding effluent limitation" means a POTW exceeding the 30 day average limit for biochemical oxygen demand or total suspended solids for at least five days out of each seven day period during a total period of 180 consecutive days.

The following specific requirements shall apply to POTW's. If a spill or major spill occurs, the owner of a POTW shall immediately:

a. Notify EPD, in person or by telephone, when a spill or major spill occurs in the system.

b. Report the incident to the local health department(s) for the area affected by the incident.

The report at a minimum shall include the following:

1. Date of the spill or major spill;

2. Location and cause of the spill or major spill;

3. Estimated volume discharged and name of receiving waters; and

4. Corrective action taken to mitigate or reduce the adverse effects of the spill or major spill.

c. Post a notice as close as possible to where the spill or major spill occurred and where the spill entered State waters and also post additional notices along portions of the waterway affected by the incident (i.e. bridge crossings, boat ramps, recreational areas, and other points of public access to the affected waterway). The notice at a minimum shall include the same information required in 11(b)(1-4) above. These notices shall remain in place for a minimum of seven days after the spill or major spill has ceased.

d. Within 24 hours of becoming aware of a spill or major spill, the owner of a POTW shall report the incident to the local media (television, radio, and print media). The report shall include the same information required in 11(b)(1-4) above.

e. Within 5 days (of the date of the spill or major spill), the owner of a POTW shall submit to EPD a written report which includes the same information required in 11(b)(1-4) above.

f. Within 7 days (after the date of a major spill), the owner of a POTW responsible for the major spill, shall publish a notice in the largest legal organ of the County where the incident occurred. The notice shall include the same information required in 11(b)(1-4) above.

g. The owner of a POTW shall immediately establish a monitoring program of the receiving waters affected by a major spill or by consistently exceeding an effluent limit, with such monitoring being at the expense of the POTW for at least one year. The monitoring program shall include an upstream sampling point as well as sufficient downstream locations to accurately characterize the impact of the major spill or the consistent exceedance of effluent limitations described in the definition of *"* Consistently exceeding effluent limitation" above. As a minimum, the following parameters shall be monitored in the receiving stream:

1. Dissolved Oxygen;

2. Fecal Coliform Bacteria;

3. pH;

4. Temperature; and

5. Other parameters required by the EPD.

The monitoring and reporting frequency as well as the need to monitor additional parameters, will be determined by EPD. The results of the monitoring will be provided by the POTW owner to EPD and all downstream public agencies using the affected waters as a source of a public water supply.

h. Within 24 hours of becoming aware of a major spill, the owner of a POTW shall provide notice of a major spill to every county, municipality, or other public agency whose public water supply is within a distance of 20 miles downstream and to any others which could be potentially affected by the major spill.

12. UPSET PROVISION

Provision under 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

B. RESPONSIBILITIES

1. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance is a violation of the Federal Clean Water Act, State Act, and the State Rules, and is grounds for:

a. Enforcement action;

b. Permit termination, revocation and reissuance, or modification; or

c. Denial of a permit renewal application.

2. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense of the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit.

3. INSPECTION AND ENTRY

The permittee shall allow the Director of the EPD, the Regional Administrator of EPA, and their authorized representatives, agents, or employees after they present credentials to:

a. Enter the permittee's premises where a regulated activity or facility is located, or where any records required by this permit are kept;

b. Review and copy any records required by this permit;

c. Inspect any facilities, equipment, practices, or operations regulated or required by this permit; and

d. Sample any substance or parameter at any location.

4. DUTY TO PROVIDE INFORMATION

The permittee shall furnish any information required by the EPD to determine whether cause exists to modify, revoke and reissue, or terminate this permit or to determine compliance with this permit. The permittee shall also furnish the EPD with requested copies of records required by this permit.

5. TRANSFER OF OWNERSHIP

A permit may be transferred to another person by a permittee if:

a. The permittee notifies the Director in writing at least 30 days in advance of the proposed transfer;

b. An agreement is written containing a specific date for transfer of permit responsibility including acknowledgment that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on. This agreement must be submitted to the Director at least 30 days in advance of the proposed transfer; and

c. The Director does not notify the current permittee and the new permittee within 30 days of EPD intent to modify, revoke and reissue, or terminate the permit. The Director may require that a new application be filed instead of agreeing to the transfer of the permit.

6. AVAILABILITY OF REPORTS

Except for data determined to be confidential by the Director of EPD under O.C.G.A. 12-5-26 or by the Regional Administrator of EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared to comply with this permit shall be available for public inspection at an EPD office. Effluent data, permit applications, permittees' names and addresses, and permits shall not be considered confidential.

7. PERMIT ACTIONS

This permit may be modified, terminated, or revoked and reissued in whole or in part during its term for causes including, but not limited to:

a. Permit violations;

b. Obtaining this permit by misrepresentation or by failure to disclose all relevant facts;

c. Changing any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

d. Changes in effluent characteristics; and

e. Violations of water quality standards.

The filing of a request by the permittee for permit modification, termination, revocation and reissuance, or notification of planned changes or anticipated noncompliance does not negate any permit condition.

8. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

9. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights of either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, or any infringement of Federal, State or local laws or regulations.

10. DUTY TO REAPPLY

The permittee shall submit an application for permit reissuance at least 180 days before the expiration date of this permit. The permittee shall not discharge after the permit expiration date. To receive authorization to discharge beyond the expiration date, the permittee shall submit the information, forms, and fees required by the EPD no later than 180 days before the expiration date.

11. CONTESTED HEARINGS

Any person aggrieved or adversely affected by any action of the Director of the EPD shall petition the Director for a hearing within 30 days of notice of the action.

12. SEVERABILITY

The provisions of this permit are severable. If any permit provision or the application of any permit provision to any circumstance is held invalid, the provision does not affect other circumstances or the remainder of this permit.

13. OTHER INFORMATION

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report form to the Director, it shall promptly submit such facts or information.

14. PREVIOUS PERMITS

All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked on the effective date of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

PART III

A. APPROVED INDUSTRIAL PRETREATMENT PROGRAM FOR PUBLICLY OWNED TREATMENT WORKS (POTWs)

1. The permittee's approved pretreatment program shall be enforceable through this permit. The permittee shall also comply with the provisions of 40 CFR 403.

2. The permittee shall administer the approved pretreatment program by:

   a. Maintaining records identifying the character and volume of pollutants contributed by industrial users to the POTW.

   b. Enforcing and obtaining appropriate remedies for noncompliance by any industrial user with any applicable pretreatment standard or requirement defined by Section 307(b) and (c) of the Federal Act, 40 CFR Part 403.5 and 403.6 or any State or local requirement, whichever is more stringent.

   c. Revising the adopted local limits based on technical analyses to ensure that the local limits continue to prevent:

      1. Interference with the operation of the POTW;

      2. Pass-through of pollutants in violation of this permit;

      3. Municipal sludge contamination; and

      4. Toxicity to life in the receiving stream.

      Within 180 days of the effective date of this permit issuance or reissuance (excluding permit modifications), the permittee shall review the local limits of the program and submit to EPD a written technical evaluation of the need to revise the local limits.

   d. Ensuring that industrial wastewater discharges from industrial users are regulated through discharge permits or equivalent individual control mechanisms. Compliance schedules will be required of each industrial user for the installation of control technologies to meet applicable pretreatment standards and the requirements of the approved program.

   e. Inspecting, surveying, and monitoring to determine if the industrial user is in compliance with the applicable pretreatment standards.

   f. Equitably maintaining and adjusting revenue levels to ensure adequate and continued pretreatment program implementation.

g. Preparing a list of industrial users which, during the reporting period January 1 to December 31, have been in significant noncompliance with the pretreatment requirements enumerated in 40 CFR Part 403.8 (f)(2)(viii). This list will be published annually each January in the newspaper with the largest circulation in the service area.

B. APPROVED PRETREATMENT PROGRAM ANNUAL REPORT

1. Within 1 month of the close of the reporting period January 1 through December 31, the permittee shall submit a report to the EPD that includes:

a. An updated list of POTW industrial users;

b. The results of POTW sampling and analyses required by the EPD;

c. A summary of POTW industrial user inspections;

d. A summary of POTW operations including information on upsets, interferences, pass through events, or violations of the permit related to industrial user discharges;

e. A summary of all activities to involve and inform the public of pretreatment requirements;

f. A summary of the annual pretreatment program budget;

g. A descriptive summary of any compliance activities initiated, ongoing, or completed against industrial users which shall include the number of administrative orders, show cause hearings, penalties, civil actions, and fines;

h. A list of contributing industries using the treatment works, divided into Standard Industrial Classification Code (SIC) categories, which have been issued permits or similar enforceable individual control mechanisms, and a status of compliance for each industrial user. The list should also identify the industries that are categorical or significant industrial users;

i. The name and address of each industrial user that has received a conditionally revised discharge limit;

j. A list of all industrial users who were in significant noncompliance with applicable pretreatment standards and requirements;

k. A list of all industrial users showing the date that each was notified that a categorical pretreatment standard had been promulgated by EPA for their industrial category and the status of each industrial user in achieving compliance within the 3 year period allowed by the Federal Act; and

l. A description of all substantial changes proposed for the program. All substantial changes must first be approved by the EPD before formal adoption by the POTW. Substantial changes shall include but not be limited to:

1. Changes in legal authority;

2. Changes in local limits;

3. Changes in the control mechanisms;

4. Changes in the method for implementing categorical pretreatment standards.

5. A decrease in the frequency of self-monitoring or reporting required of industrial users;

6. A decrease in the frequency of industrial user inspections or sampling by the POTW;

7. Significant reductions in the program resources including personnel commitments, equipment, and funding levels;

8. Changes in confidentiality procedures; and

9. Changes in the POTW sludge disposal and management practices.

2. Reports submitted by an industrial user will be retained by the permittee for at least 3 years and shall be available to the EPD for inspection and copying. This period shall be extended during the course of any unresolved litigation concerning the discharge of pollutants by an industrial user or concerning the operations of the program or when requested by the Director.

C. INDUSTRIAL PRETREATMENT STANDARDS

Effluent limitations for the permittee's discharge are listed in Part I. Other pollutants attributable to industrial users may also be present in the discharge. When sufficient information becomes available, this permit may be revised to specify effluent limitations for these pollutants based on best practicable technology or water quality standards. Once the specific nature of industrial contributions has been identified, data collection and reporting may be required for parameters not specified in Part I.

D. REQUIREMENTS FOR EFFLUENT LIMITATIONS ON POLLUTANTS ATTRIBUTABLE TO INDUSTRIAL USERS

1. The permittee shall require all industrial dischargers to the POTW to meet State pretreatment regulations promulgated in response to Section 307(b) of the Federal Act. Other information about new industrial discharges may be required and will be requested from the permittee after the EPD has received notice of the discharge.

2. The permittee may be required to supplement the requirements of the State and Federal pretreatment regulations to ensure compliance with all applicable effluent limitations listed in Part I. Supplemental actions by the permittee concerning some or all of the industries discharging to the POTW may be necessary.

E. RETAINER

EPD may require the permittee to amend an approved pretreatment program to incorporate revisions in State Pretreatment Regulations or other EPD requirements. Any approved POTW pretreatment program identified by EPD that needs to modify its program to incorporate requirements that have resulted from revision to the Rules shall develop and submit those revisions to EPD no later than one (1) year of notification by EPD to modify the Program. Any modifications made to the approved pretreatment program must be incorporated into the permit and the program pursuant to Chapter 391-3-6-.09(7) of the State Rules. Implementation of any revision or amendments to the program shall be described in the subsequent annual report to the EPD.

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the State.

Technical Contact:

Kelli-Ann Sottile, Environmental Engineer
Kelli-ann.sottile@dnr.ga.gov
404-463-4945

Draft permit:

- ☐ First issuance
- ☐ Reissuance with no or minor modifications from previous permit
- ☒ Reissuance with substantial modifications from previous permit
- ☐ Modification of existing permit
- ☒ Requires EPA review
- ☒ Designated as a major (Greater than 1 MGD or approved pre-treatment program)

1. FACILITY INFORMATION

1.1 NPDES Permit No.: GA0038130

1.2 Name and Address of Owner/Applicant

Gwinnett County Department of Water Resources
684 Winder Highway
Lawrenceville, Georgia 30045

1.3 Name and Address of Facility

F. Wayne Hill Water Resources Center
1500 One Water Way
Buford, Georgia 30519

1.4 Location and Description of the Discharge (as reported by applicant)

Outfall #	Latitude (º)	Longitude (º)	Receiving Waterbody
001	34.163610	-84.056320	Lake Sidney Lanier

1.5 Permitted Design Capacity

Discharge to Lake Sidney Lanier: 50 MGD

Discharge to Crooked Creek WRF: 20 MGD

Combined Treatment Capacity: 60 MGD

The F. Wayne Hill WRC is permitted to treat a combined flow rate of 60 MGD (monthly average). The facility is permitted to discharge up to 50 MGD (monthly average) of the treated flow to Lake Sidney Lanier. The permit also includes provisions for up to 20 MGD (monthly average) of treated wastewater to be pumped to the Crooked Creek WRF's (NPDES Permit No. GA0026433) shared effluent pipe prior to discharge to the Chattahoochee River. Refer to NPDES Permit No. GA0026433 for combined effluent monitoring requirements.

1.6 SIC Code and Description

SIC Code 4952 – Sewerage systems: Establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes as may be provided.

1.7 Description of the Water Pollution Control Plant

Wastewater treatment:

The treatment process consists of screening, primary clarification equalization basin, biological treatment (activated sludge for nutrients removal), secondary clarification, chemical addition for phosphorus removal and pH/alkalinity control, post-equalization, tertiary clarification, carbonization, tertiary filtration, granular activated carbon, and ozone disinfection. Treated effluent is then either pumped to the Crooked Creek WRF, where it is combined with the Crooked Creek WRF's effluent prior to being discharged to the Chattahoochee River (refer to NPDES Permit No. GA0026433), or discharged directly to Lake Sidney Lanier.

Solids processing:

Sludge is thickened, anaerobically digested, dewatered using centrifuges and transported to a landfill (Richland Creek, Oak Grove, and/or Pine Ridge Landfills) for disposal.

1.8 Type of Wastewater Discharge

☐	Process wastewater	☐	Stormwater
☒	Domestic wastewater	☐	Combined (Describe)
☐	Other (Describe)		

1.9 Characterization of Effluent Discharge (as reported by applicant)

Outfall No. 001:

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value	Average Daily Value
Flow (MGD)	44	34
Five-Day Biochemical Oxygen Demand (mg/L)	3	1
Total Suspended Solids (mg/L)	2	0.5
Fecal Coliform Bacteria (#/100mL)	1	1
Ammonia, as N (mg/L)	0.17	0.05
Total Phosphorus, as P (mg/L)	0.1	0.04

2. APPLICABLE REGULATIONS

2.1 State Regulations

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Municipal/Domestic/POTW	Municipal/Domestic Effluent Discharge	40 CFR 122 40 CFR 125 40 CFR 127 40 CFR 133 40 CFR 136
	Non-Process Water Discharges	40 CFR 122 40 CFR 125 40 CFR 127 40 CFR 136
	Municipal/Domestic Sludge Use and Disposal	40 CFR 122 40 CFR 127 40 CFR 136 40 CFR 257 40 CFR 501 & 503

3. WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of use classifications, numeric and or narrative water quality criteria and an anti-degradation policy. The use classification system designates the beneficial uses that each waterbody is expected to achieve, such as drinking water, fishing, or recreation. The numeric and narrative water quality criteria are deemed necessary to support the beneficial use classification for each water body. The antidegradation policy represents an approach to maintain and to protect various levels of water quality and uses.

3.1 Receiving Waterbody Classification and Information – Lake Sidney Lanier:

Specific Water Quality Criteria for Classified Water Usage [391-3-6-.03(6)]:

Drinking Water Supplies:

Those waters approved as a source for public drinking water systems permitted or to be permitted by the Environmental Protection Division. Waters classified for drinking water supplies will also support the fishing use and any other use requiring water of a lower quality.

(i) Bacteria:

1. For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200 counts per 100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 counts per 100 mL in lakes and reservoirs and 500 counts per 100 mL in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 counts per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 counts per 100 mL for any sample. The State does not encourage swimming in these surface waters since a number of factors which are beyond the control of any State regulatory agency contribute to elevated levels of bacteria.

(ii) Dissolved oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for water supporting warm water species of fish.

(iii) pH: Within the range of 6.0 - 8.5.

(iv) No material or substance in such concentration that, after treatment by the public water treatment system, exceeds the maximum contaminant level established for that substance by the Environmental Protection Division pursuant to the Georgia Rules for Safe Drinking Water.

(v) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F of natural stream temperatures.

Recreation:

General recreational activities such as water skiing, boating, and swimming, or for any other use requiring water of a lower quality, such as recreational fishing. These criteria are not to be interpreted as encouraging water contact sports in proximity to sewage or industrial waste discharges regardless of treatment requirements:

(i) Bacteria:

1. Coastal and estuarine waters: Culturable enterococci not to exceed a geometric mean of 35 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 counts per 100 mL in the same 30-day interval.

2. All other recreational waters: Culturable E. coli not to exceed a geometric mean of 126 counts per 100 mL. The geometric mean duration shall not be greater than 30 days. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 counts per 100 mL in the same 30-day interval.

(ii) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

(iii) pH: Within the range of 6.0 - 8.5.

(iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

Fishing:

Propagation of Fish, Shellfish, Game and Other Aquatic Life; secondary contact recreation in and on the water; or for any other use requiring water of a lower quality.

(i) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for water designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.

(ii) pH: Within the range of 6.0 - 8.5.

(iii) Bacteria:

1. For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200/100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 per 100 mL in lakes and reservoirs and 500 per 100 mL in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 per 100 mL for any sample. The State does not encourage swimming in these surface waters since a number of factors which are beyond the control of any State regulatory agency contribute to elevated levels of bacteria.

2. For waters designated as shellfish growing areas by the Georgia DNR Coastal Resources Division, the requirements will be consistent with those established by the State and Federal agencies responsible for the National Shellfish Sanitation Program. The requirements are found in National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish, 2007 Revision (or most recent version), Interstate Shellfish Sanitation Conference, U.S. Food and Drug Administration.

(iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

3.2 Ambient Information

Outfall ID	30Q3 (cfs)	7Q10 (cfs)	1Q10 (cfs)	Annual Average Flow (cfs)	Hardness (mg $CaCO_3$/L)	Upstream Total Suspended Solids (mg/L)
001	N/A [(1)]	N/A [(1)]	N/A [(1)]	N/A [(1)]	20 [(2)]	10 [(3)]

[(1)] Not applicable (lake discharge). Based on the 1999 Modeling Analysis submitted by the County, an effective dilution factor of 14 at 10 feet from the diffusers has been assumed for the reasonable potential analysis. Refer to Appendix B.

[(2)] Not available. A conservative value of 20 mg/L will be used for the reasonable potential analysis calculations.

[(3)] Not available. A conservative value of 10 mg/L will be used for the reasonable potential analysis calculations.

3.3 Georgia 305(b)/303(d) List Documents

Lanier Lake	Dam Pool	Chattahoochee	Not Supporting	Chlorophyll a	7245	4a	TMDL completed Chlorophyll a 2018.
GAR031300010821	Gwinnett, Hall, Forsyth	Drinking Water, Recreation, Fishing	1,77	NP, UR	Acres		

Lake Sidney Lanier is listed on the 2020 305(b)/303(d) list as not supporting its designated use (drinking water, recreation, fishing) but TMDLs have been completed for the impacted parameters (chlorophyll a).

3.4 Total Maximum Daily Loads (TMDLs)

The Georgia Environmental Protection Division completed a Total Maximum Daily Load (TMDL) for Chlorophyll-a for Lake Lanier in the Chattahoochee River Basin in 2018. The TMDL includes a wasteload allocation for total phosphorus (TP) and total nitrogen (TN) at the F. Wayne Hill WRC of 12,176 lb/year and 1,887,342 lb/yr, respectively, under both the "current" and "interim" TMDLs. The "current" and "interim" TP load is equivalent to a concentration of 0.08 mg/L at 50 MGD; therefore, the TP limit in the draft permit is in accordance with the 2018 TMDL. The TN wasteload allocation will not be implemented in NPDES permits as long as Lake Lanier's Chlorophyll-a and Total Nitrogen standards are met. Nitrate and total Kjeldahl nitrogen (TKN) monitoring requirements have been included in the draft permit.

3.5 Wasteload Allocation (WLA)

WLAs for the expansion was issued on October 11, 2018. Refer to *Appendix A* of the Fact Sheet for a copy of the WLAs.

4. EFFLUENT LIMITS AND PERMIT CONDITIONS

4.1 Water Quality Based Effluent Limitations (WQBELs) & Technology Based Effluent Limitations (TBELs)

When drafting a National Pollutant Discharge Elimination System (NPDES) permit, a permit writer must consider the impact of the proposed discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state water quality standards. By analyzing the effect of a discharge on the receiving water, a permit writer could find that technology-based effluent limitations (TBELs) alone will not achieve the applicable water quality standards. In such cases, the Clean Water Act (CWA) and its implementing regulations require the development of water quality-based effluent limitations (WQBELs). WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (*fishable/swimmable*).

WQBELs are designed to protect water quality by ensuring water quality standards are met in the receiving water and both the designated and downstream uses are protected. On the basis of the requirements of 40 C.F.R §125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality.

TBELs aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the State. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and WQBELs. The NPDES regulations at 40 C.F.R. §125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA section 301(b), that represent the minimum level of control that must be imposed in a permit. The regulation also requires permit writers to include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality.

40 CFR Part §122.44(a)(1) requires that NPDES permits include applicable technology-based limitations and standards, while regulations at § 125.3(a)(1) state that TBELs for publicly owned treatment works must be based on secondary treatment standards and the "equivalent to secondary treatment standards" (40 CFR Part 133). The regulation applies to all POTWs and identifies the technology-based performance standards achievable based on secondary treatment for five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH.

The table below shows the secondary treatment standards:

Parameter	**Secondary Treatment Standards**	
	30-day Average	*7-day Average*
$CBOD_5$	25 mg/L	40 mg/L
TSS	30 mg/L	45 mg/L
BOD_5 and TSS removal (concentration)	≥ 85%	--
pH (Daily Minimum – Daily Maximum)	6.0-9.0 S.U.	

4.2 Reasonable Potential Analysis (RPA)

EPA regulations at 40 C.F.R. §122.44(d)(1)(i) state, "limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will *cause*, have the *reasonable potential to cause*, or *contribute* to an excursion above any [s]tate water quality standard, including [s]tate narrative criteria for water quality."

EPA regulations at 40 C.F.R. §122.44(d)(1)(ii) require States to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criterion within a state water. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. Georgia has developed reasonable potential procedures, based upon the specific category of pollutants and/or specific pollutant of concern. Chemical specific and biomonitoring data and other pertinent information in EPD's files will be considered, in accordance with the review procedures specified in the GA Rules and Regulations for Water Quality Control, Chapter 391-3-6, in the evaluation of a permit application and in the evaluation of the reasonable potential for a discharge to cause an exceedance in the numeric or narrative criteria.

The term "pollutant" is defined in CWA section 502(6) and 40 C.F.R. §122.2. Pollutants are grouped into three categories under the NPDES program: conventional, toxic, and nonconventional. Conventional pollutants are those defined in CWA section 304(a)(4) and 40 C.F.R.§401.16 (five day-biochemical oxygen demand (BOD_5), total suspended solids (TSS), fecal coliform, pH, and oil and grease). Toxic (priority) pollutants are those defined in CWA section 307(a)(1) and include 126 metals and manmade organic compounds. Nonconventional pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as, but not limited to, chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).

EPD evaluates the data provided in the application and supporting documents. If a pollutant is listed in the following sections of this fact sheet below, the permit writer determined the pollutant is a pollutant of concern and there may be a reasonable potential to cause or contribute to an instream violation of the Georgia water quality standards. If a pollutant is not listed below, EPD determined the pollutant is not a pollutant of concern or has determined, based on the data provided in the application, there is no reasonable potential to cause or contribute to an instream violation of the Georgia water quality standards. An example may be if the applicant reported "not detect" or "below detection limit".

Upon identification of a pollutant of concern by the permit writer, in accordance with 40 C.F.R. §122.44(d)(1)(ii), the permit writer must then perform a reasonable potential analysis using a procedure which has accounted for any combination of the following criteria: existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water to determine if the pollutant and its discharge has the reasonable potential to cause, or contribute to an in-stream excursion above the allowable ambient concentration of a state narrative or numeric criteria within the state's water quality standard for an individual pollutant.

In accordance with 40 C.F.R. §122.44(d)(1)(iii), if the permit writer has determined, using a reasonable potential procedure the pollutant of concern in the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a state numeric or narrative criteria within a state water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant. If the permit writer has determined there is insufficient data, the permit writer might also consider monitoring requirements to collect the additional data related to the presence or absence of a specific pollutant to provide information for further analyses for the development of appropriate numeric or narrative standard.

The conventional, nonconventional, and toxic pollutants listed in the following sections have been identified by the permit writer as pollutants of concern and the permit writer has determined through current practices and procedures one of the following: no additional monitoring or numeric and/or narrative effluent limits are needed; additional monitoring is required; or numeric and/or narrative effluent limits are necessary to protect the receiving water body and its downstream users and those limits have been included in the permit.

The monitoring and sampling locations are prescribed in the permit and determined by the permit writer after considering, at a minimum, the following: type of discharge, specific pollutant, discharge frequency, location of the discharge, receiving waterbody, downstream users, etc.

The sample type, grab vs. composite, is prescribed in the permit and determined by the permit writer after considering, at a minimum, the analytical method required in 40 C.F.R. §136, the type of pollutant, retention time, etc. Grab samples are required for the analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), or volatile organics.

4.3 Whole Effluent Toxicity (WET)

Chronic WET test measures the effect of wastewater on indicator organisms' growth, reproduction and survival. Effluent toxicity is predicted when the No Observable Effect Concentrations (NOEC) for a test organism is less than the facility's Instream Wastewater Concentration (IWC). WET testing also requires a measure of test sensitivity known as the Percent Minimum Significant Difference (PMSD). See Table below from Section 10.2.8.3 (page 52) of EPA 821-R-02-013 *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, 4th Edition, 2002 for PMSD variability criteria.

TABLE 6. VARIABILITY CRITERIA (UPPER AND LOWER PMSD BOUNDS) FOR SUBLETHAL HYPOTHESIS TESTING ENDPOINTS SUBMITTED UNDER NPDES PERMITS.[1]

Test Method	Endpoint	Lower PMSD Bound	Upper PMSD Bound
Method 1000.0, Fathead Minnow Larval Survival and Growth Test	growth	12	30
Method 1002.0, *Ceriodaphnia dubia* Survival and Reproduction Test	reproduction	13	47
Method 1003.0, *Selenastrum capricornutum* Growth Test	growth	9.1	29

[1] Lower and upper PMSD bounds were determined from the 10th and 90th percentile, respectively, of PMSD data from EPA's WET Interlaboratory Variability Study (USEPA, 2001a; USEPA, 2001b).

PMSD must be calculated for each species tested as follows:

$$\text{MSD} = \frac{\text{Minimum Significant Data (MSD)}}{\text{Control Mean}} \times 100 \quad \%$$

4.3.1 Testing Results:

In accordance with the current permit, the effluent from the F. Wayne Hill WRC will not be considered toxic if the No Observed Effect Concentration (NOEC) is greater than or equal to the Instream Wastewater Concentration (IWC) of 17%. If results of the WET tests predict toxicity or are invalid, then the permittee may be required to perform additional WET tests or the permit may be modified to include chronic WET effluent limitations.

The permittee submitted the results of 5 WET tests with the application. For all tests, the NOEC for the *Ceriodaphnia dubia* survival and reproduction and the *Pimephales promelas* survival and growth were greater than or equal to the IWC of 17%; therefore, effluent is not considered toxic. Refer to WET Test results summary in the table below.

PMSD values were calculated for each set of results and compared to EPA's Variability Criteria to ensure their validity. PMSD for *Ceriodaphnia dubia* reproduction and *Pimephales promelas* survival from the five WET tests were lower or within EPA's Variability Criteria; therefore, the tests are considered valid. Refer to Appendix D for PSMD values.

Test	Sample Date	No Observed Effect Concentration (NOEC) (1)			
		Ceriodaphnia dubia		*Pimephales promelas*	
		Survival (%)	Reproduction (%)	Survival (%)	Growth (%)
1	2/2015	68	68	68	68
2	2/2016	68	68	68	68
3	3/2017	68	68	68	68
4	5/2018	68	68	68	68
5	3/2019	68	68	68	68

(1) The greatest concentration tested for each sample date provided was 68%.

4.3.2. Expanded Discharge of 50 MGD:

In accordance with EPD's *Whole Effluent Toxicity Strategy,* 2001, chronic WET testing is required for facilities with an IWC greater than 1% and/or equipped with a diffuser. Therefore, the permittee must conduct one chronic whole effluent toxicity (WET) test for four consecutive quarters, with the first test being conducted within 90 days of the effective date of the permit.

EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. The effluent will not be considered toxic if the No Observed Effect Concentration (NOEC) is greater than or equal to an Instream Wastewater Concentration (IWC) of 7%, based on a dilution factor of 14. If the test results indicate effluent toxicity or if the tests are invalid, the permittee may be required to perform additional WET tests in accordance with Part I.C.5 of the permit and/or the permit may be modified to include a chronic WET limit.

4.4 Conventional Pollutants

Pollutants of Concern	Basis
pH	The instream wastewater concentration (IWC) is 7%, based on an effective dilution factor of 14 at 10 feet from the diffusers. When the IWC is less than 50%, there is no reasonable potential to cause or contribute to violation of the instream Georgia Water Quality Standard; therefore, pH limits of 6.0-9.0 SU (daily minimum-daily maximum) were included in the draft permit.

Five-Day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)	According to the Lake Lanier water quality model using the Environmental Fluid Dynamics Code, a monthly average $CBOD_5$ limit of 2.5 mg/L, when combined with the ammonia limit (refer to Section 4.5 below), is protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1 above. Therefore, this limitation has been included in the draft permit. In accordance with 40 CFR 133.104(b), chemical oxygen demand (COD) limitations may be implemented in lieu of BOD_5 if a long-term correlation between BOD and COD has been demonstrated. Since $CBOD_5$ may be implemented in lieu of BOD_5 in accordance with 40 CFR 133.102(a)(4), a correlation between CBOD and COD may also be demonstrated. Therefore, the permittee may choose to complete a correlation study to determine the appropriate relationship between CBOD and COD. If the permittee wishes to pursue this option for a correlation study, the permittee must submit a monitoring plan for review and approval prior to the initiation of the study. Following EPD's approval of the plan and the correlation study results, the permit may be modified to reflect the relationship between the two parameters.
Total Suspended Solids (TSS)	A monthly average TSS limitation of 3 mg/L has been included in the draft permit in accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc. Refer to *Appendix F* for a copy of the Resolution.
Fecal Coliform Bacteria (FCB)	A monthly average FCB limitation of 2 #/100mL has been included in the draft permit in accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc. Refer to *Appendix F* for a copy of the Resolution. Additionally, the draft permit includes a weekly average limitation of 23 #/100mL to allow for operational flexibility.

Escherichia Coli	In accordance with 40 C.F.R. §122.44(d)(1)(ii) of the federal regulations, EPD considers all POTWs, Private and Institutional Developments, and CSO Control Facilities, discharging all or a portion of domestic sanitary wastewater, to have the reasonable potential to cause or contribute to instream water quality standard violations for bacteria, including fecal coliform and *Escherichia coli*. EPD has determined that these facilities discharge the conventional pollutant fecal coliform bacteria, wastewater treatment systems are consistently designed to treat fecal coliform bacteria, and fecal coliform bacterium are highly variable in the receiving stream after treatment. Furthermore, dilution is not considered in EPD's analysis as bacteria have the inherent ability to reproduce in the receiving stream. The designated uses for Lake Lanier are recreation and drinking water. Recreational waters have a bacteria criterion for E. Coli (126 #/100 mL), while drinking water supplies have a bacteria criterion for fecal coliform bacteria (200 #/100mL). Therefore, a monthly average *E. Coli* limitation of 126 #/100mL and a weekly average limitation of 410 #/100mL has been included in the draft permit in accordance with the referenced water quality criteria.

4.5 Nonconventional Pollutants

Pollutants of Concern	Basis
Total Residual Chlorine (TRC)	A daily maximum TRC limit 0.15 mg/L has been included in the draft permit. This limit is in accordance with EPD's *Total Residual Chlorine Strategy, 2010*. Refer to Section 4.7 for calculations. However, the facility is equipped with an ozone system for disinfection; therefore, TRC monitoring requirements and effluent limitations only apply when chlorine is in use at the facility.
Dissolved Oxygen (DO)	According to the Lake Lanier water quality model using the Environmental Fluid Dynamics Code, a minimum effluent DO of 7.0 mg/L is protective of the instream Water Quality Standard for dissolved oxygen at the discharge location.

Chemical Oxygen Demand (COD)	A technology-based monthly average COD effluent limitation of 18 mg/L has been included in the draft permit in accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc. Refer to *Appendix F* for a copy of the Resolution. Since a $CBOD_5$ limitation has been included in the permit to maintain compliance with the water quality criteria (refer to Section 4.4) and the COD limitation has been maintained as a demonstrated performance technology standard rather than for water quality purposes, it has been determined that a monitoring frequency for COD of one day per month is sufficient to demonstrate compliance with this required technology standard.
Total Phosphorus (TP)	The 2017 TMDL for Chlorophyll-a in Lake Lanier requires a maximum annual loading of 12,176 lb/year under both the "current" and "interim" TMDLs from F. Wayne Hill WRC, which is equivalent to 0.08 mg/L at the permitted flow. Therefore, a monthly average TP limit of 0.08 mg/L is in accordance with the TMDL requirements. This monthly average limitation is also in accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc. Refer to *Appendix F* for a copy of the Resolution. The draft permit also includes a weekly average effluent limitation for TP of 0.12 mg/L, based on a standard factor of 1.5 from the monthly average. Based on a review of discharge monitoring reports for the past twenty-four months, the facility can consistently meet the proposed weekly average limitation while operating at a flow greater than 50% of the facility's design capacity.
Orthophosphate, Total Kjeldahl Nitrogen (TKN), Organic Nitrogen, Nitrate-Nitrite	Orthophosphate, TKN, organic nitrogen, and nitrate-nitrite monitoring has been included in the draft permit. The data will be used to determine nutrient speciation and to quantify nutrient loadings in the Chattahoochee River Basin.

Ammonia (NH_3)	A monthly average ammonia effluent limitation of 0.4 mg/L has been included in the draft permit in accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc. Refer to *Appendix F* for a copy of the Resolution. According to the Lake Lanier water quality model using the Environmental Fluid Dynamics Code, the monthly average ammonia limit of 0.4 mg/L, when combined with the monthly average COD limit (Refer to Section 4.5), is also protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1. The proposed limitation is also in accordance with EPD's *NPDES Permitting Strategy for Addressing Ammonia Toxicity*, 2017.
Turbidity	A daily maximum turbidity effluent limitation of 0.5 NTU has been included in the draft permit in accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc. Refer to *Appendix F* for a copy of the Resolution.
Temperature	Temperature monitoring of the effluent has been included in the permit. The data will be used for water quality monitoring and assessment in Lake Lanier.

4.6 Toxics & Manmade Organic Compounds

The permittee submitted the results of eight Priority Pollutant Scans (PPS) with the permit application. All pollutants were "non-detect" except for the following:

Pollutants of Concern	Basis
Total Recoverable Copper	This parameter was evaluated in accordance with the procedures provided in 391-3-6.06 of the Georgia Rules and Regulations for Water Quality Control and its instream concentration was found to be less than 50% of the acute and chronic instream water quality standards. Refer to *Appendix C* for reasonable potential evaluations. In accordance with EPD reasonable potential procedures, copper is not considered a pollutant of concern.

Total Recoverable Zinc	This parameter was evaluated in accordance with the procedures provided in 391-3-6.06 of the Georgia Rules and Regulations for Water Quality Control and its instream concentration was found to be less than 50% of the acute and chronic instream water quality standards. Refer to *Appendix C* for reasonable potential evaluations. In accordance with EPD reasonable potential procedures, zinc is not considered a pollutant of concern.
Chloroform	This parameter was evaluated in accordance with the procedures provided in 391-3-6.06 of the Georgia Rules and Regulations for Water Quality Control and its instream concentration was found to be less than 50% of the instream water quality standards. Refer to *Appendix C* for reasonable potential evaluations. In accordance with EPD reasonable potential procedures, chloroform is not considered a pollutant of concern.

In accordance with the 2005 Resolution between Gwinnett County and the Lake Lanier Association, Inc., the permittee must conduct quarterly scans of all priority pollutants, including total recoverable mercury. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E. Refer to *Appendix F* for a copy of the Resolution.

If substances are measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.5 or the permit may be modified to include effluent limitations for priority pollutants.

4.7 Calculations for Effluent Limits

4.7.1 Instream Waste Concentration (IWC):

The dilution factor is assumed to be 14:1 based on a distance of 10 feet from the diffuser, in accordance with the County's 1999 Modeling Analysis. Refer to Appendix B.

IWC = 1 / (1 + Dilution Factor) %

$$= \frac{1}{1+14}$$

= 7 %

4.7.2 Flow:

Q = Flow
C = Concentration
M = Mass

- *Weekly Average Flow:*

Q_{Weekly} = $Q_{Monthly}$ (MGD) x 1.25

= 50 x 1.25

= 62.5 MGD

4.7.3 Five-Day Carbonaceous Biochemical Oxygen Demand:

- *Weekly Average Concentration:*

$[C]_{Weekly}$ = $[C]_{Monthly}$ (mg/L) x 1.5

= 2.5 x 1.5

= 3.8 mg/L

- *Monthly Average Mass Loading:*

$$M_{Monthly} = \frac{Q_{Monthly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{50 \times 2.5 \times 8.34}{2.2}$$

= 473.9 kg/day

- *Weekly Average Mass Loading:*

$$M_{Weekly} = \frac{Q_{Weekly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{62.5 \times 2.5 \times 8.34}{2.2}$$

= 592.3 kg/day

4.7.4 Total Suspended Solids:

- *Weekly Average Concentration:*

$[C]_{Weekly}$ = $[C]_{Monthly}$ (mg/L) x 1.5

= 3 x 1.5

= 4.5 mg/L

- *Monthly Average Mass Loading:*

$$M_{Monthly} = \frac{Q_{Monthly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{50 \times 3 \times 8.34}{2.2}$$

= 569 kg/day

- *Weekly Average Mass Loading:*

$$M_{Weekly} = \frac{Q_{Weekly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{62.5 \times 3 \times 8.34}{2.2}$$

= 711 kg/day

4.7.5 Chemical Oxygen Demand Oxygen Demand:

- *Weekly Average Concentration:*

$[C]_{Weekly}$ = $[C]_{Monthly}$ (mg/L) x 1.5

= 18 x 1.5

= 27.0 mg/L

- *Monthly Average Mass Loading:*

$$M_{Monthly} = \frac{Q_{Monthly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{50 \times 18 \times 8.34}{2.2}$$

= 3,411.8 kg/day

- *Weekly Average Mass Loading:*

$$M_{Weekly} = \frac{Q_{Weekly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{62.5 \times 18 \times 8.34}{2.2}$$

= 4,264.8 kg/day

4.7.6 Total Residual Chlorine (TRC):

- *Daily Maximum Concentration:*

$[TRC]_{Effluent}$ = Dilution Factor x [TRC]

= 14 x 0.011

= 0.15 mg/L

4.7.7 Ammonia:

- *Toxicity Analysis:*

The chronic criterion based on *Villosa iris* (rainbow mussel) is determined as follows:

$$CCC = 0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) \times 2.126 \times 10^{0.028 \times (20-MAX(T,7))} \text{ mg/L}$$

Where: pH : pH of receiving stream and discharge
T : Temperature of receiving stream
CCC : Chronic Continuous Concentration

The maximum ammonia effluent limit (monthly average) to ensure the toxicity criterion is not exceeded may then be calculated based on the dilution factor of 14. Refer to *Appendix E* for detailed calculations.

- *Weekly Average Concentration:*

$[C]_{Weekly}$ = $[C]_{Monthly}$ (mg/L) x 1.5

= 0.4 x 1.5

= 0.6 mg/L

- *Monthly Average Mass Loading:*

$$M_{Monthly} = \frac{Q_{Monthly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{50 \times 0.4 \times 8.34}{2.2}$$

= 75.8 kg/day

- *Weekly Average Mass Loading:*

$$M_{Weekly} = \frac{Q_{Weekly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{62.5 \times 0.4 \times 8.34}{2.2}$$

$$= 94.8 \text{ kg/day}$$

4.7.8 Total Phosphorus:

- *Weekly Average Concentration:*

$$[C]_{Weekly} = [C]_{Monthly}\,(mg/L) \text{ x } 1.5$$

$$= 0.08 \text{ x } 1.5$$

$$= 0.12 \text{ mg/L}$$

- *Monthly Average Mass Loading:*

$$M_{Monthly} = \frac{Q_{Monthly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{50 \times 0.08 \times 8.34}{2.2}$$

$$= 15.2 \text{ kg/day}$$

- *Weekly Average Mass Loading:*

$$M_{Weekly} = \frac{Q_{Weekly}\,(MGD) \times [C]_{Monthly}\,(mg/L \text{ or } ppm) \times 8.34\,(lbs/gal)}{2.2\,(lbs/Kg)}$$

$$= \frac{62.5 \times 0.08 \times 8.34}{2.2}$$

$$= 19.0 \text{ kg/day}$$

4.7.9 Metals

Refer to *Appendix C* for metal calculations.

4.8 Comparison & Summary of Water Quality vs. Technology Based Effluent Limits

After determining applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit:

Parameter	WQBELS [1]	TBELS [1]
	Monthly Average	*Monthly Average*
Carbonaceous Biochemical Oxygen Demand (mg/L)	**2.5**	15
Total Suspended Solids (mg/L)	None	**3**
Chemical Oxygen Demand (mg/L)	None	**18**
Total Phosphorus (mg/L)	**0.08**	**0.08**
Ammonia (mg/L)	**0.4**	**0.4**
Fecal Coliform Bacteria (#/100mL)	200	**2**
Escherichia Coli (#/100 mL)	**126**	None
Dissolved Oxygen (mg/L), Daily Minimum	**7.0**	None
Total Residual Chlorine (mg/L), Daily Maximum	**0.15**	None
pH (S.U.), Daily Minimum – Daily Maximum	**6.0-9.0**	**6.0-9.0**
Turbidity (NTU)	None	**0.5**

[1] Effluent limits in bold were included in the permit. Refer to Sections 4.4, 4.5, 4.6, and 4.7 above for more information.

5. OTHER PERMIT REQUIREMENTS AND CONSIDERATIONS

5.1 Expanded Discharge of 50 MGD

5.1.1 Antidegradation Review

On April 30, 2020, EPD concurred with the County's Anti-Degradation Analysis report (Report) for an expanded discharge flow of 50 MGD to Lake Lanier from the existing facility. The proposed volume and discharge location are in accordance with the Metro District Water Resource Management Plan; therefore, the Report does not include supplementary flow and population projects.

The Report discusses reasonable alternatives stating that a) the facility is not subject to excessive inflow and infiltration; b) there are not sufficient reuse customers within 5 miles of the facility to dispose of the entire flow; and c) discharge via a land application system would require approximately 5,000 acres of land, which is not available within 5 miles of the facility.

Additionally, the Report discusses the need for return flow to Lake Lanier, as documented by the Metropolitan North Georgia Water District and the U.S. Army Corps of Engineers. The County estimates that the expanded discharge may support this need by raising the volume of the Lake by approximately 1.5 feet.

The County has also documented the financial impacts of the referenced alternatives in the Report. The existing facility is currently designed to accept and treat up to 60 MGD of domestic wastewater to the limits provided in the wasteload allocation issued to the County. Therefore, no capital costs will be required for the proposed expanded discharge. This is the preferred alternative compared to the costs of a new reuse or land application system.

Based on the information provided, EPD determined that the report adequately illustrates that the benefits associated with the increased quantity of treated wastewater outweigh the effects of lowering water quality at the discharge location. Therefore, EPD concurs with the Report's conclusion that requiring a no discharge alternative system for 50 MGD of domestic wastewater would not be reasonable or practicable.

5.1.2 Permitting Milestones

- Antidegradation Review (ADR): Concurred with on April 30, 2020
- Environmental Information Document (EID): Received in 1999 (1)

  (1) Although only permitted for 40 MGD, the facility was designed and built with a capacity of 60 MGD; therefore, an updated EID was not required.

- Design Development Report (DDR): Received in 1999 (1)

  (1) Although only permitted for 40 MGD, the facility was designed and built with a capacity of 60 MGD; therefore, an updated DDR was not required.

5.2 Flow Pumped to Crooked Creek WRF

The draft permit includes provisions (Part I.B.2) for the facility to pump up to 20 MGD (monthly average) of treated effluent to the Crooked Creek WRF's shared effluent pipe. Pumped effluent is combined with the treated effluent from the Crooked Creek WRF prior to being discharged to the Chattahoochee River. Effluent limitations and monitoring requirements for the combined effluent are provided in NPDES Permit No. GA0026433.

Since the treated wastewater pumped to the Crooked Creek WRF is not representative of the final effluent discharged to the receiving waters, the monitoring location at the F. Wayne Hill WRC is considered an "internal outfall." Although the permittee may need to sample for parameters at the internal outfall for operational purposes, effluent testing data is not needed for permitting purposes; therefore, monitoring requirements for these parameters have not been included in the draft permit at this location.

5.3 Instream Monitoring

Monitoring requirements to evaluate instream temperature at Buford Dam have been included in the draft permit (Part I.C.12) to ensure water quality standards for temperature are being met.

Additionally, the County has developed a monitoring plan for Lake Sidney Lanier. The draft permit includes requirements (Part I.C.13) for the County to submit a report annually of the data collected in accordance with the approved plan.

5.4 Long-Term BOD (LTBOD) Test

For facilities with a capacity of 1.0 MGD or greater, EPD may include requirements for LTBOD tests in permits for when data is needed for water quality modeling. The permittee conducted a LTBOD test during the current permit cycle; therefore, requirements for LTBOD testing have not been included in the draft permit.

5.5 Maintenance Requirements

The draft permit includes requirements (Part I.A.5.) for the County to conduct an inspection of the outfall pipe and diffusers once during the permit cycle. The inspection must be conducted by a certified diver and/or appropriate remote/robotic technologies.

5.6 Industrial Pretreatment Program (IPP)

Gwinnett County has an approved IPP; therefore, language has been included in the draft permit to reflect the approved program.

5.7 Sludge Management Plan (SMP)

Sludge is disposed in a landfill (Richland Creek, Oak Grove, and/or Pine Ridge Landfills in Gwinnett, Barrow, and Butts Counties, respectively); therefore, an SMP is not required.

5.8 Watershed Protection Plan (WPP)

The County has an approved WPP; therefore, language has been included in the draft permit to reflect the approved plan.

5.9 Service Delivery Strategy

Gwinnett County is in compliance with the Department of Community Affairs approved Service Delivery Strategy for Gwinnett County.

5.10 Metropolitan North Georgia Water Wastewater Plan

Gwinnett County is in compliance with the Metropolitan North Georgia Water Planning District (MNGWPD)'s Water Resource Management Plan.

5.11 Compliance Schedules

Effluent limitations are applicable immediately upon the effective date of the permit.

5.12 Anti-Backsliding

CWA Section 402(o) requires a reissued permit to be as stringent as the previous permit, unless a facility meets one of several exceptions. CWA Section 402(o)(2)(A) outlines the exception for any permitted facility that experiences "material and substantial alterations or additions […] which justify the application of a less stringent limitation."

However, this exception may only be allowed if the increase in loading does not cause or contribute to a violation of the water quality standards, as indicated by CWA Sections 303(d)(4)(A) and 303(d)(4)(B) where 1) the waterbody is not impaired for the specific parameter, or 2) waterbody is impaired for the parameter and the existing effluent limitations are based on either a WLA or TMDL, and the water quality modeling indicates that attainment of the water quality standards is assured.

Although the draft permit includes an increased loading to the receiving water, the permit complies with the referenced anti-backsliding requirements, since the loading is to support the substantial addition of wastewater flow and a wasteload allocation has been issued for the discharge. Additionally, the permit complies with Georgia's Antidegradation Policy, as amended. Refer to Section 5.1 for more information on the antidegradation analysis.

6. REPORTING

6.1 Compliance office

The facility has been assigned to the following EPD office for reporting, compliance and enforcement:

Georgia Environmental Protection Division
Watershed Compliance Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

6.2 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

7. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable.

8. PERMIT EXPIRATION

The permit will expire five years from the effective date.

9. PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

9.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1152 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday, as well as on EPD's website accessible through the publicly available Georgia EPD Online System (GEOS): https://geos.epd.georgia.gov/GA/GEOS/Public/GovEnt/Shared/Pages/Main/Login.aspx.

For additional information, you can contact 404-463-1511.

9.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at *EPDcomments@dnr.ga.gov* within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

9.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.

If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

9.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be found at the following address:

http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0

9.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

FACT SHEET

Appendix A

F. Wayne Hill Water Resources Center
NPDES Permit No. GA0038130

Waste Load Allocation (WLA)

National Pollutant Discharge Elimination System
Waste Load Allocation Form

Part I: Background Information

WLA Request Type: Reissuance ☐ Modification ☐ Relocation ☐ Expansion ☒ New Discharge ☐

Facility Name: **Gwinnett County – F. Wayne Hill WRC** County: **Gwinnett** WQMU: **1290**

NPDES Permit No.: **GA0038130** Expiration Date: **July 31, 2019** Outfall Number: **001**

Receiving Water: **Lake Sidney Lanier** River Basin: **Chattahoochee** 10-Digit HUC: **0313000108**

Discharge Type: Domestic ☐ Industrial ☐ Both ☒ Proportion (D:I): Flow(s) Requested (MGD): **50.0**

Industrial Contributions Type(s):

Treatment Process Description:

Additional Information: (history, special conditions, other facilities):

Requested by: **Kelli-Ann Sottile** Title: **Environmental Engineer** Program: **Wastewater Regulatory Program**

Telephone: Date: **June 18, 2018**

Part II: Receiving Water Information

Receiving Water: **Lake Sidney Lanier** Designated Use Classification: **Recreation**

Integrated 305(b)/303(d) List: Yes ☒ No ☐ Support: ☒ Not Support: ☐ Criteria:

Total Maximum Daily Load: Yes ☒ No ☐ Parameter(s) **Nutrients** WLA Complies with TMDL Yes ☒ No ☐

The Final Total Maximum Daily Load Evaluation for Lake Lanier in the Chattahoochee River Basin for Chlorophyll *a* was finalized in December 2017.

Part III: Water Quality Model Review Information

Model Type: Uncalibrated ☐ Calibrated ☒ Verified ☐ Cannot be Modeled ☐ Model Length (mi):

Field Data: None ☐ Fair ☐ Good ☐ Excellent ☐

Model and Field Data Description: **The Lake Sidney Lanier water quality model using the Environmental Fluid Dynamics Code (EFDC) was used to assess the water quality conditions resulting from this discharge.**

Critical Water Temperature:(°C): Drainage Area (mi²): Mean annual streamflow at discharge (cfs):

7Q10 Yield (cfs/mi²): Velocity (range fps): 30Q3 streamflow at discharge (cfs):

Effluent Flow Rate (cfs): **77.35** IWC (%): 7Q10 streamflow at discharge (cfs):

Slope (range - fpm): K1: K3: K2 : 1Q10 streamflow at discharge (cfs):

SOD: Escape Coef. (ft^{-1}): f-Ratio BOD_u/BOD_5): Background Hardness (as $CaCO_3$)(mg/L):

Part IV: Recommended Permit Limitations and Conditions (mg/L as a monthly average except as noted)

Rationale: Same as current ☐ Revised ☒ New ☐

Location: **Lake Sidney Lanier**

Effluent Flow Rate (MGD)	$CBOD_5$	NH_3-N	DO (min)	E. coli (No./100ml)	pH (std. units)	Total-P	Ortho-P	TKN	NO_x	Org-N	Effluent Temp.
50.0	**2.5**	**0.4**	**7.0**	**126**	**6.0 – 9.0**	**0.08**	**Mon**	**Mon**	**Mon**	**Mon**	**Mon**

Additional Comments:

Priority pollutant permit limits, aquatic toxicity testing requirements, and other parameters required by categorical effluent guidelines or identified during review of the permit application are to be determined by the Wastewater Regulatory Program.

Effluent monitoring of ortho-P, TKN, nitrate-nitrite, and organic nitrogen is recommended. Total-P and Ortho-P should be analyzed from the same effluent sample. Ortho-P is a component of TP and should always be less than or equal to TP. TKN, nitrate-nitrite, and ammonia should be analyzed from the same effluent sample. Organic Nitrogen should be calculated as TKN minus NH_3.

Water temperature monitoring of the Buford Dam tailrace, and temperature monitoring of the F. Wayne Hill Water Resources Center effluent shall be continued as prescribed in the original permit. Water quality monitoring of Lake Sydney Lanier shall be continued as prescribed in the May 2, 2007, Lake Lanier Monitoring Plan submitted by Gwinnett County.

Mon = Monitor

Prepared by: **Paul Lamarre** Date: **August 24, 2018** | Reviewed by: **Josh Welte** JW Date: **3 OCT 18**

Part V: Program Manager Comments

Elizabeth A Booth.

Elizabeth Booth Date: 10/11/18

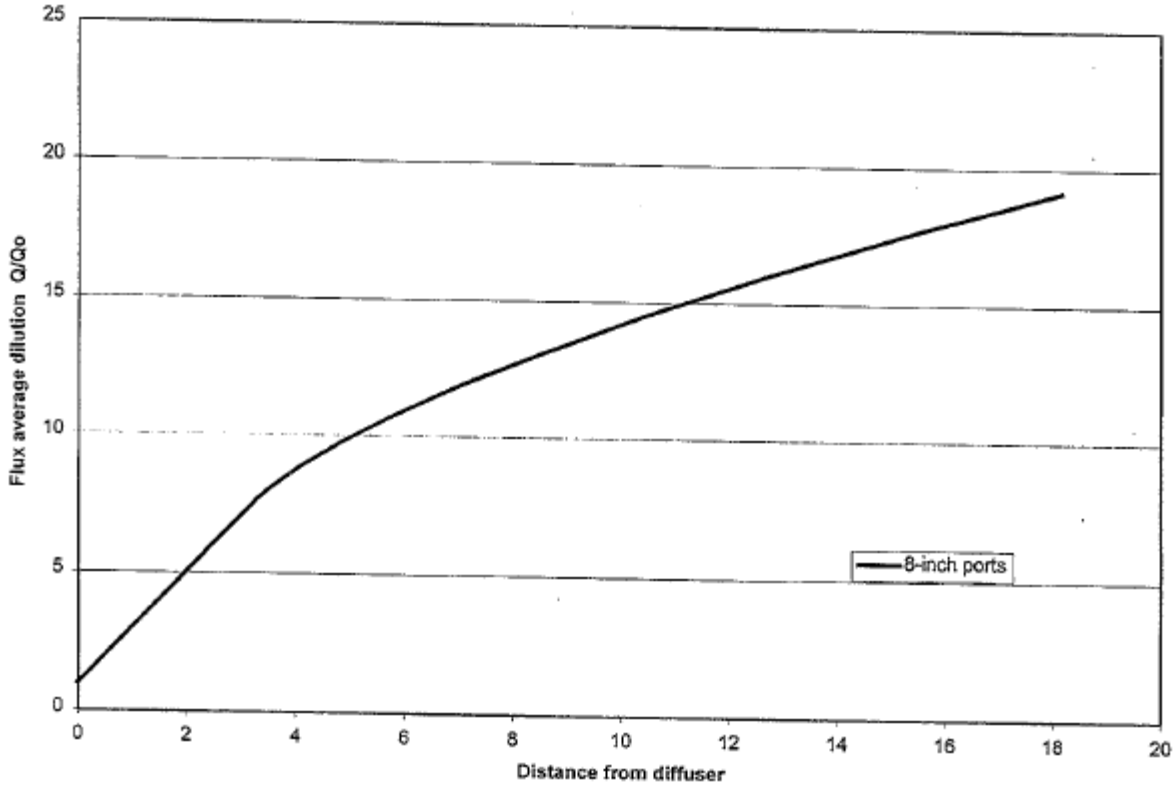
FACT SHEET

Appendix B

F. Wayne Hill Water Resources Center
NPDES Permit No. GA0038130

Diffuser Dilution Factor

Figure 3. Gwinnett/Lake Lanier Outfall Dilution Factors
Plot is the same for both Summer and Winter



FACT SHEET

Appendix C

F. Wayne Hill Water Resources Center
NPDES Permit No. GA0038130

Reasonable Potential Analysis

FACT SHEET

Appendix C

F. Wayne Hill WRC
NPDES Permit No. GA0038130

Stream Data (upstream of the discharge):

TSS:	**10**	mg/L
7Q10:	**N/A**	ft^3/s
1Q10:	**N/A**	ft^3/s
Mean flow:	**N/A**	ft^3/s

Effluent Data:

TSS:	**3.0**	mg/L
Flow:	**50,000,000**	gal/day
Flow:	77.37	ft^3/s

Stream data (downstream of the discharge):

Hardness (at 7Q10):	**20.0**	mg/L		
TSS (at 7Q10):	9.51	mg/L		
Dilution factor (at average flow):	14.00		IWC (at average flow):	7 %
Dilution factor (at 7Q10):	14.00		IWC (at 7Q10):	7 %
Dilution factor (at 1Q10):	14.00		IWC (at 1Q10):	7 %

Acute Water Quality Criteria (WQC_{Acute}) - Metals:

Metal	K_{PO}	α	f_D	**Maximum** effluent C_T (µg/L)	Instream C_D (µg/L)	WQC_{Acute} (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	**0.0**	0.0	340.00	no
Cadmium	4.00.E+06	-1.131	0.000	**0.0**	0.0	0.40	no
Chromium III	3.36.E+06	-0.930	0.00	**0.0**	0.0	152.49	no
Chromium VI	3.36.E+06	-0.930	0.00	**0.0**	0.0	16.00	no
Copper	1.04.E+06	-0.744	0.35	**6.1**	0.15	2.95	no
Lead	2.80.E+06	-0.800	0.00	**0.0**	0.0	10.79	no
Mercury	N/A	N/A	N/A	**0.0**	0.0000	1.40	no
Nickel	4.90.E+05	-0.572	0.00	**0.0**	0.0	119.99	no
Zinc	1.25.E+06	-0.704	0.29	**30.3**	0.63	29.97	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream}(mg/L)^{(1+\alpha)} \times 10^{-6}} \qquad \text{Instream } C_D = \frac{\text{Effluent } C_T(mg/L) \times f_D}{DF} \text{ mg/L}$$

$$\text{Dilution Factor} = \frac{Q_{Stream}(ft^3/sec) + Q_{Effluent}(ft^3/sec)}{Q_{Effluent}(ft^3/sec)}$$

FACT SHEET

Appendix C

F. Wayne Hill WRC
NPDES Permit No. GA0038130

Chronic Water Quality Criteria ($WQC_{Chronic}$) - Metals:

Metal	K_{PO}	α	f_D	Average effluent C_T (µg/L)	Instream C_D (µg/L)	$WQC_{Chronic}$ (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	**0.0**	0.0	150.00	no
Cadmium	4.00.E+06	-1.131	0.000	**0.0**	0.0	0.21	no
Chromium III	3.36.E+06	-0.930	0.00	**0.0**	0.0	19.84	no
Chromium VI	3.36.E+06	-0.930	0.00	**0.0**	0.0	11.00	no
Copper	1.04.E+06	-0.744	0.35	**4.10**	0.10	2.26	no
Lead	2.80.E+06	-0.800	0.00	**0.0**	0.0	0.42	no
Mercury	N/A	N/A	N/A	**0.0**	0.00	0.012	no
Nickel	4.90.E+05	-0.572	0.00	**0.0**	0.0	13.33	no
Zinc	1.25.E+06	-0.704	0.29	**18.5**	0.38	30.21	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream}(mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$\text{Instream } C_D = \frac{\text{Effluent } C_T(mg/L) \times f_D}{DF} \quad mg/L$$

Water Quality Criteria (WQC) - Non Metals:

Pollutant	Effluent C_T (µg/L)	Instream Concentration (µg/L)	WQC (µg/L)	WQC/2 (µg/L)	Action needed?
Chloroform	**6.6**	0.47	470.0	235.0	**no**

NOTES:

- Water Quality Criteria (WQC) from State of Georgia Rules and Regulations 391-3-6-.03.
- If the calculated instream concentration is less than 50% of the instream water quality criteria, then the constinuent will be considered not to be present at levels of concern.
- If the calculated instream concentration is greater than 50% of the instream water quality criteria, then additional monitoring may be required or a limit for that constinuent may be included in the permit.

FACT SHEET

Appendix D

F. Wayne Hill Water Resources Center
NPDES Permit No. GA0038130

PMSD Values

FACT SHEET

Appendix D

F. Wayne Hill WRC
NPDES Permit No. GA0038130

WET Test PMSD Values:

PMSD = Minimum Significant Data (MSD) / Control Mean x 100 %

WET Test #1 **2/2015**

Species	PMSD Bounds	MSD	Control Mean	PMSD	
Water Flea (C. dubia)	13-47	--	--	**26.20**	Within
Fathead Minnow (P. promelas)	12-30	--	--	**27.50**	Within

WET Test #2 **2/2016**

Species	PMSD Bounds	MSD	Control Mean	PMSD	
Water Flea (C. dubia)	13-47	--	--	**17.4**	Within
Fathead Minnow (P. promelas)	12-30	--	--	**20.6**	Within

WET Test #3 **3/2017**

Species	PMSD Bounds	MSD	Control Mean	PMSD	
Water Flea (C. dubia)	13-47	--	--	**19.2**	Within
Fathead Minnow (P. promelas)	12-30	--	--	**17.0**	Within

WET Test #4 **5/2018**

Species	PMSD Bounds	MSD	Control Mean	PMSD	
Water Flea (C. dubia)	13-47	--	--	**15.8**	Within
Fathead Minnow (P. promelas)	12-30	--	--	**17.6**	Within

WET Test #5 **3/2019**

Species	PMSD Bounds	MSD	Control Mean	PMSD	
Water Flea (C. dubia)	13-47	--	--	**23.2**	Within
Fathead Minnow (P. promelas)	12-30	--	--	**17.4**	Within

FACT SHEET

Appendix E

F. Wayne Hill Water Resources Center
NPDES Permit No. GA0038130

Ammonia Toxicity Analysis

Gwinnett County - F. Wayne Hill WRF Ammonia Toxicity Computation
Appendix E

Effluent Parameters:

Dilution Factor:	14
Instream Wastewater Concentration (1/DF):	7%

Chronic Criterion based on Villosa iris (Rainbow mussel):

Instream CCC = criterion continuous concentration (chronic criterion):

$$CCC = 0.8876 \times \left(\frac{0.0278}{1 + 10^{(7.688 - pH)}} + \frac{1.1994}{1 + 10^{(pH - 7.688)}}\right) \times \left(2.126 \times 10^{0.028 \times (20 - MAX(T,7))}\right)$$

pH:	**7.5**	Note: pH and water temperature values can be changed to compute the allowable instream ammonia concentration for comparison purposes.
Water Temperature:	**30**	
Allowable Instream Ammonia Concentration:	0.73	
Maximum Effluent Ammonia Concentration (mg/L):	**10.24**	Limit in accordance with toxicity criterion
Effluent Ammonia Concentration (mg/L):	**0.4**	Limit in accordance with 2005 Resolution
Diluted Effluent Ammonia Concentration (B5/B4) (mg/L):	**0.029**	

Therefore, the most stringent limit (0.4 mg/L) is applied.

12/1/2020

FACT SHEET

Appendix F

F. Wayne Hill Water Resources Center
NPDES Permit No. GA0038130

2005 Resolution between Gwinnett County and Lake Lanier Association, Inc.

David

House of Representatives

JOHN HEARD
REPRESENTATIVE, DISTRICT 104
1430 EUGENIA TERRACE
LAWRENCEVILLE, GEORGIA 30045
(770) 845-5555 (C)
(770) 963-0188 (H)
(770) 682-6820 (FAX)
E-MAIL: jheard@legis.state.ga.us

STATE CAPITOL, ROOM 401
ATLANTA, GEORGIA 30334
(404) 657-8532
(404) 463-2044 (FAX)

STANDING COMMITTEES:

INFORMATION & AUDITS - CHAIRMAN
APPROPRIATIONS
APPROPRIATIONS GENERAL SUB-COMMITTEE-SECRETARY
NATURAL RESOURCES & ENVIRONMENT
STATE INSTITUTIONS & PROPERTY

May 1, 2005

Dr. Carol Couch
Director EPD
Dept. of Natural Resources
State of Georgia
Atlanta, Ga. 300303

Dear Carol,

I was going to simply email but was unable to find your email address, only your fax# could be found.

As you recall, we met approximately 3 weeks ago with Gwinnett County and the representatives of Lake Lanier Association. That meeting ended with agreement on many counts, but no agreement on the phosphorus number. Minutes of that meeting are attached.
We meet again yesterday with Charles Bannister, Jock Connell, Frank Stevens, Jackie Joseph and Val Perry. I am happy to report an agreement was reached and signed onto by all parties. I am attaching the signed agreement.
I would like to set up a meeting with you on Friday, May 6 at your office. Jackie and Val have asked that they come with me to discuss with you how future permits affecting Lake Lanier can be addressed.
I can be reached at my cell, 770-845-5555. Also, by copy of this letter to Terry DeMeo King, I ask for a meeting with the Governor on the same day for a similar discussion. It may work out best for all to combine the meetings together. I will leave that choice to you and terry.
Thank you for all you guidance on this matter. Let me know what you think.

Sincerely,

John Heard

Cc: Terry DeMeo King, tking@gov.state.ga.us

House of Representatives

JOHN HEARD
REPRESENTATIVE, DISTRICT 104
1430 EUGENIA TERRACE
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STANDING COMMITTEES:

INFORMATION & AUDITS - CHAIRMAN
APPROPRIATIONS
APPROPRIATIONS GENERAL SUB-COMMITTEE-SECRETARY
NATURAL RESOURCES & ENVIRONMENT
STATE INSTITUTIONS & PROPERTY

April 30, 2005

Resolution of Discharge Permit for Gwinnett County and Lake Lanier Association, Inc.

Attendees:

Charles Bannister, Chairman, Gwinnett County Board of Commissioners
Jock Connell, County Administrator, Gwinnett County
Frank Stephens, Director, Gwinnett County Dept. of Public Utilities
Jackie Joseph, President, Lake Lanier Association, Inc.
Val Perry, Executive Vice President, Lake Lanier Association, Inc.
John Heard, District 104 Georgia House of Representatives

In a joint meeting this day between the above parties representing the Lake Lanier Association, Inc., and the Gwinnett County Government, the following agreement related to the Georgia Department of Natural Resources, Environmental Protection Division, and discharge permit for the F. Wayne Hill Water Treatment Facility is hereby adopted:

1. The diffuser will be at or below elevation 965 feet mean sea level, and the routing of the pipeline would be designed to maximize the submerged depth of the pipeline. This is intended to minimize the discharge flow influencing the photic zone, as well as making the temperature of the discharge as close to the receiving water as feasible.

2. The discharge should be located nearer to the dam than its current location. A new model and design will be conducted to provide a new location.

3. Permit limits of pollutants:

Phosphorus	0.08 mg/l
COD	18 mg/l
Ammonia	0.4 mg/l
Mercury	MONITORED ONCE PER QUARTER WITH OTHER PRIORITY POLLUTANTS
Turbidity	0.5 NTU
Fecal Coliform	2/100 ml
TSS	3 mg/L

4. With this agreement, the Lake Lanier Association, Inc. will not oppose the reissuance of a permit conforming to these expectations.
5. The Lake Lanier Association, Inc. will write a letter to the U.S. Army Corps of Engineers stating that the Association will not oppose the discharge permit and the discharge location.

By Signature below all parties do hereby jointly request that the EPD discharge permit GA0038130 be issued with the above outlined criteria.

LAKE LANIER ASSOCIATION, INC

Jackie Joseph
President

Val Perry
Exec. Vice President

FACILITATOR

John Heard
Representative

GWINNETT COUNTY

Charles E. Bannister
Chairman

Jack Connell
County Administrator

Frank Stephens
Department Director
Gwinnett County Public Utilities

House of Representatives

JOHN HEARD
REPRESENTATIVE, DISTRICT 104
1430 EUGENIA TERRACE
LAWRENCEVILLE, GEORGIA 30045
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April 13, 2005

Meeting Minutes

Attendees:

Terry Demalo King, Governor's Office
Carol Couch, Director, Georgia EPD
David Word, Asst. Director, Georgia EPD
Charles Bannister, Chairman, Gwinnett County Board of Commissioners
Bert Nasuti, District 2, Gwinnett County Board of Commissioners
Jock Connell, County Administrator, Gwinnett County
Frank Stevens, Acting Director, Gwinnett County Dept. of Public Utilities
Jackie Josephs, President, Lake Lanier Association
Val Perry, Executive Vice President, Lake Lanier Association
Charlee Rittenhouse, Technical Advisor, Lake Lanier Association
John Heard, District 104 Georgia House of Representives

Meeting was called to order by Representive Heard and all parties were welcomed and statement made as to the purpose of the meeting. The purpose is to explore the issues of the latest proposed DNR permit in an effort to find those areas of commonality that will lead to a mutually beneficial agreement of settlement between all parties for the DNR to proceed with issues of A discharge permit for the F. Wayne Hill Sewer Discharge that will be unchallenged by the Lake Lanier Association.

Introductions:

Val Perry introduced the Lake Lanier Association and presents a 10 page outline of their history, back ground, and position of the Association on the Lake and on the process to date of the proposed permit for discharge of the Gwinnett Treatment Plant.

Carol Couch presented the Department of Natural Resources EPD position of the Discharge permit.

Frank Stevens presented the position of Gwinnett County on the discharge permit.

Discussions:

It was determined that the discharge pipe as it crossed the shoreline is fixed based on the US corp. of engineers. The location, depth, and length of the pipe are open for adjustments.

The county and the Lake Lanier Association agree as follows:

1. The outlet will be in a location and depth that will release the discharge below the thermal cline of the lake which is approximately 33 feet below the surface. This surface fluxuates to a depth of up to 20 feet below full pool of 1071', therefore the pipe should be at an elevation of 1018' or below.

2. The discharge should be located nearer to the dam than its current location. A new model and design will be conducted to provide a new location.

3. Permit limits of pollutants:

COD	15 mg/l
Ammonia	0.4 mg/l
Mercury	MONITORED ONCE PER QUARTER WITH OTHER PRIORITY POLLUTANTS
TTS	3.0 mg/l
Turbidity	0.5 NTU
Fecal Coliform	0.02 ml

The meeting resulted in an agreement on all aspects of the proposed permit except for the amounts of Phosphorus allowed. The proposed limit is 0.10 mg/l. LLA adjusted their demand to 0.07 mg/l. Both DNR and Gwinnett County acknowledged a desire for better performance in this area, but due fact that the plant has already shown in a very limited operation that 0.07 may be difficult to meet, a higher standard from the original permit of 0.13 mg/l will be a challenge and the 0.10 will be the permitted limit.

In an effort to find middle ground, it was suggested that a temporary limit of 0.07 be set for a period and reviewed at the end of that period and the permit limits be adjusted based on plant performance. This could not happen due to existing "back sliding law".

It was further agreed that the plant performance related to permit limits will be reviewed by a third party in the future and adjustments to the permit limits be strengthened based on actual plant performance.

LLA would not accept this proposal without a phosphorus limit of 0.07 mg/l. With that impasse, the meeting was adjourned.